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OLDEST BEE PAPER IN AMERICA

THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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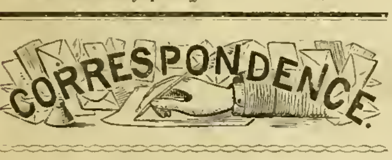

For the American Bee Journal.

Fertilization in Confinement.

G. W. DEMAREE.

I have been something of an enthusiast on the subject of controlling the fertilization of queens. I have felt sure that after so much has been accomplished in the way of reducing bee-culture to a respectable science, the good work would go on till the much-desired secret of successful fertilization in confinement would be discovered. With this hopeful state of mind, I determined not to be an idle spectator while others were prosecuting the work. In the month of August last I made what I called a fertilizing cage, provided with a steep glass roof. Thus prepared, I watched for a virgin queen, and when she came out to take her bridal trip I captured her and placed her in the cage, which was set on top of the hive.

First one drone and then another, till a half dozen or more were put into the cage. The queen appeared to take her confinement quietly; inflated to the fullest extent. she showed her beauty to the best advantage. If you would see a virgin queen in all her glory, you must look at her when out on her hey-day spree. The queen and drones flew lively in the cage, but the latter would do nothing but beat their cowardly heads against the glass roof, unconscious of the presence of the queen. After well-nigh baking myself in the hot sun, I gave it up and returned the queen to her hive.

SECOND EXPERIMENT AND FAILURE.

The next day I proceeded to try the following experiment.in hopes of throwing some light on the subject. I procured a pole 16 feet long, to one end ot which I nailed a strip of wood about 4 feet in length, at right angles with the pole. Armed with a fine thread 4 or 5 feet long I watched for the queen, and when she came out I caught her, and by the aid of the deft fingers of Mrs. D., one end of the thread was made to span the delicate waist of her royal highness, the loop being provided with a knot to prevent it from cramping her waist—a performance, by the way, that required no little skill. Thus cabled, her wings and limbs were left free from incumbrance. The thread was now tied to the end of the transverse bar aforesaid. and the pole hoisted a few rods from the apiary. The queen performed nicely at the end of the thread. There were plenty of drones flying, and soon (I should think in 2 minutes' time) the air was black with drones circling about the fettered queen. Now and then one of them would give her chase, but when the thread would bring her to a sudden halt, he would dart to one side and disappear. Several times a drone struck her with considerable force, but would bound away as though suddenly frightened. I watched the proceedings closely till the queen became weary and the drones retired. The experiment proved a failure as to the fertilization of the queen, which I attributed to the fact that the queen was somewhat injured by catching hold of a tuft of grass when the pole was being elevated.

WHAT THE EXPERIMENT SUGGESTED.

It is evident from what I saw in connection with this experiment, that a great number of drones follow the queen when flirting through the air, while out on her hey-day spree, and perhaps the swiftest cavalier of them all overtakes and is accepted by her. Thus it would appear that nature in this way selects the swiftest specimens of the race to propagate the species. If this is not mere "theory," it goes very far to show why nature has provided so many males in comparison with the number of developed females, and why the latter must take the risk of fertilization in the open air.

I gave much time last season to the study of this subject, and I find that a well-developed virgin queen plies her wings with lightning velocity, and flies with wonderful rapidity. Now, if she does not give chase to the drones, how are we to account for the fact that she usually makes three or more trips into the air when drones are plenty? I saw one beautiful, slender little princess make 16 trips before she was caught by a drone. When she returned for the last time—having been gone 22 minutes—she fell short of the entrance of the hive, like a worker bee over-loaded with honey and pollen. Three days later she was laying.

If nature has determined that the "race is to the swift" as pertains to the propagation of the honey bee, then perhaps nature will forbid the interference of the wisdom of man in this matter—or, in other words, fertilization in confinement will never be a success.

Christiansburg, Ky., Nov., 1880.

For the American Bee Journal.

My Bee Report for 1880.

JAMES HEDDON.

Now that the end is past and our bees are once more prepared for winter, I will give you my Glenwood apiary report for 1880.

I began the season with 185 colonies; increased. by natural swarming, to 235; obtained 108 cases of comb honey, containing about 24 lbs. net per case—say 2,592 lbs. of comb honey—and 800 lbs. of extracted honey, from unfinished sections. None but 15 cases of the comb honey is sold, and that here at home at 15c. per lb., as it was the "culls"—*i. e.*, combs hardly fit to ship, but a little too good to extract—such combs as were *full* of honey, but not *all* capped over. The 15 cases brought $43.50. We will put the 93 first class at 20c. net (we feel sure we shall get it, for some of this apiary's honey is now sold so that our net receipt is 23c. per lb., all in the spruce figured sections), which will amount to 2,232 lbs., at 20c., will bring $446.40. We will put the 800 lbs. extracted at 10c. per lb. net, which makes $80; honey sold at the apiary and brought home, say $5.00; total receipts, $574.90. The small increase will, in value, no more than offset winter losses perhaps.

Now for the expense account:

Hired help	$172 00
Railroad fare and freights, say	20 00
100 glassed cases for comb honey	15 00
1,300 sections	10 40
Foundation for same	10 40
	$227 80
This deducted from the income	574 90
Leaves a net of	$347 10

The investment is about as follows:

185 colonies of bees, at $8.00	$1,480 00
Buildings and land	600 00
Surplus arrangement to hives, winterlog boxes and other fixtures and tools	320 00
Total	$2,400 00
10 per cent. of this to cover interest, insurance and taxes	240 00

If I have made no mistake in this hasty figuring, it shows I have $107.10 for superintending this apiary, more than its worth would amount to at 8 per cent. interest. even in this poorest of all seasons. It will be further seen, that because the scarcity of surplus is general, the price being higher holds us above loss this poor year. We hope for more honey another season, and shall be willing to accept less per lb. for it. I should rather have established one or two more apiaries than to have made the large sales I have just been making, but for the fact that I know not where to get reliable, active and skilled help.

Some may think that the capital invested need not be so great, but I cannot see how I can get along with less and "do what is worth doing, *well*," unless, perhaps, about $300 might be deducted for a dwelling-house that we do not need or use very much, having two other capacious buildings.

The foregoing is a better result than I had supposed the figures would show, inasmuch as the *pro rata* yield is only about 16 lbs. of comb honey (counting 2 lbs. of extracted honey as 1 of comb).

My home apiary, of about the same number of colonies and investment, did about as well this season, for the first time since the other was established. I find that well-bred stock, and well-kept apiaries, buildings and tools, pay the best interest on investment, either in good or poor seasons. If we have a "shower" of honey, we mean to be ready for every drop of surplus; if only a few drops, we mean to make sure of that. By the way, I came near forgetting $50 worth of feed, fed in the Glenwood apiary, to make up the little that some colonies lacked. This reduces my pay for superintending to $57.10; however, my hands there spent far more time here than I did there. The above is probably very close to the final results, when all is closed up for 1880.

Dowagiac, Mich., Nov. 11, 1880.

For the American Bee Journal.

Alsike Clover for Bee Pasturage.

M. M. BALDRIDGE.

Alsike or Swedish clover (*Trifolium hybridum*) as its name indicates, is a native of Sweden, where it grows wild—being both hardy and productive. It is commonly known by the name of Alsike, that being a parish in Sweden where this clover originated. It was brought into cultivation in Sweden about the beginning of the present century, was introduced into England in 1834, and soon thereafter found its way into the German States and other parts of Europe, and was finally brought into the United States, through the Patent Office, about the year 1853.

Alsike clover is regarded by botanists as a hybrid between our common red and white clovers. The stem and branches are finer and less woody than the common red, and when cut and cured for hay, it is perfectly free from fuzz or dust. It does not turn black, but remains the color of well-cured timothy. It has, as the following cut shows, numerous branches and a multitude of blossoms which are rich in honey. The bees have no trouble in finding the honey, as the blossoms are short and the heads no larger than white clover. The blossoms at first are white, but soon change to a beautiful pink, and emit considerable fragrance. The leaves are oval, of a pale green color, and may readily be distinguished at any stage of their growth from the white or red clover by the total absence of a pale white blossom on the upper surface of each leaf, a peculiarity unnoticed by previous writers.

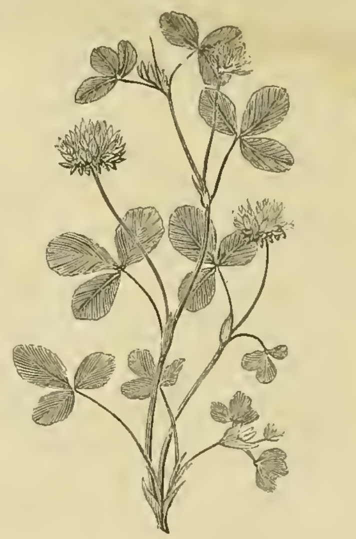

FIG. 1.—*Alsike Clover Plant in bloom.*

It ripens, in the latitude of Chicago, in the latter part of July, but needs not to be cut till August, if the weather should be unfavorable. The crop of seed is always obtained from this cutting, in which respect it is unlike the common red. It is not advisable to cut this clover more than once each season, but it may be pastured moderately during the fall. When cut for seed, it may be threshed from the field with a common clover machine; but, if more convenient, it may be stacked and threshed during the fall or winter.

Care should be taken in handling this clover, as the seed shells very easily; but this is looked upon as a point in its favor, as the land thus becomes re-seeded every year, and so early, that if the autumn proves to be a wet one, nearly every grain will germinate, and a fine growth of new plants will be secured for the following year. The seed is very fine—being about the size and shape of white clover—a pound containing, it is said, about 600,000 grains, or three times as many as the common red. The seed-pods contain 1, 2, 3 and sometimes 4 grains, which explains why it is so prolific—a moderate yield being from 150 to 200 lbs. of seed to the acre.

When sowed by itself, 4 lbs. of seed is a great plenty for an acre; but this is not the best plan to pursue, especially with our dry western prairies. It is much the better way to mix Alsike with timothy or the common red, or with both. When thus mixed, they are a help to each other. The Alsike being a native of a cold climate, does not winter-kill, and besides, it acts as a mulch in winter and spring to the common red, and keeps the latter from being destroyed by the heaving-out process. As the red clover shades the roots of the Alsike, which grow close to the surface, it protects the latter from the effects of drouth. The timothy and red clover being both upright growers, lift and keep up the Alsike from the ground, which is very desirable. The stem of the Alsike is too fine to support its many branches in an upright position, and hence is more inclined to lodge than the common red. For the reasons given, the combination of the three named plants is very important, and will prove successful wherever tried.

When mixed, sow the usual quantity of timothy and red clover, and not more than 2 lbs. of Alsike seed to the acre—in fact, 1 lb. will be ample. If wanted for seed, it might then be best to use 2 lbs. of Alsike to the acre. Timothy and red clover do no harm, as the crop may be cut so early that the Alsike will be the only plant ripe enough to furnish seed. Timothy seed being about the same size of the Alsike, cannot very well be separated from it; but such is not the case with red clover, as a fine sieve will quickly do the work.

Alsike clover, as a fertilizer, must be as good a plant as red clover, if not better, as an examination of figures 2 and 3 will show. Having often dug up specimen roots of both Alsike and the common red clovers for comparison and exhibition, fully as much difference in the size of the crowns and the quantity of roots and rootlets have been found as the cuts indicate. The representations are very accurate, and the reader will do well to examine them closely and note the difference, which seems to be decidedly in favor of the Alsike. Having now grown Alsike on a variety of soils for the past 12 years with good success, I know that what I have set forth in this article are facts and not theories.

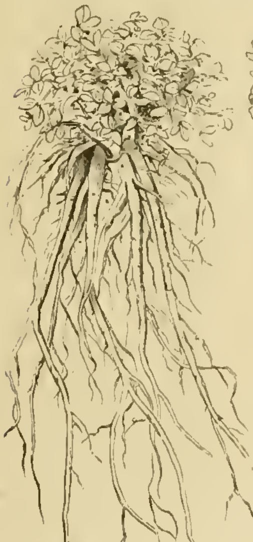

FIG. 2.—*Alsike Clover Root and Crown, average size, one year old.*

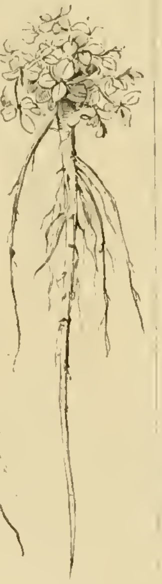

FIG. 3.—*Red Clover Root and Crown, one year old.*

But the main object of this article is to call special attention of bee-keepers to Alsike as a honey plant. It is well known to the fraternity that my favorite honey plant is Melilot clover, than which none better has yet been found in the United States. But Melilot will never be cultivated to any extent except by bee-keepers, as no farmer would think of such a thing as growing it for hay and pasture. But Alsike clover is a plant that every farmer can and should cultivate, whether he keeps bees or not, as it is superior to the common red, for hay or pasture, for all kinds of stock.

Now, let me indicate to bee-keepers what should be done, and that right speedily. Suppose you have 50 or 100 colonies of bees, more or less, then visit the farmers in close range and ascertain how many acres they intend to seed down to grass the following spring, and induce enough of them to sow at least as many acres to Alsike, timothy and red clover, as you have colonies. The more land you can thus get seeded down the better. Induce them, if possible, to buy the seed at the *cost* price, but if you cannot do this, let them have it at *half* the cost price, but if this fails, then make them a *present* of as many pounds as they will sow acres. They certainly could not and would not object to this last proposition, as it would be no more work to sow the grass seed mixed with Alsike than if it were left out. As the Alsike seed can now be purchased for about $25 to $30 per 100 lbs., instead of $75 to $100, the price when first brought here, a bee-range can now be supplied with one of the very best honey plants at a trifling expense. One hundred acres of Alsike, mixed with other grasses, in full bloom during June and July, in the neighborhood of 100 colonies of bees, would insure a large crop of the choicest honey every year, and cause the bee-keeper to swing his hat with joy. Now, if every reader of the BEE JOURNAL will act upon this advice the present winter, hundreds of tons of the finest honey will be added to the crop of 1882, and I am quite sure you will thank me for calling your attention to the project; if so, I shall feel amply repaid.

St. Charles, Ill., Dec., 1880.

For the American Bee Journal.

Wired Comb Foundation.

D. S. GIVEN.

The brood is reported as dying over the wires, and the queen skipping the cell over the wires, and some have seen the bees trying to remove the wires, and these statements have come from those whose word I cannot doubt. To say different bees treat it differently would be nonsense. Wired frames have been my hobby for the past 3 years.

Although wired foundation was given through *Gleanings* as an invention of its editor, a description of it can be seen 2 months before in the AMERICAN BEE JOURNAL, over my signature. Though this is an invention I am proud of, I cannot raise my voice with this *second inventor*, against all these, and say, "you most assuredly are mistaken if you mean to say our fine tinned wire kills larvæ." I am frank to say my experience has been much the same as others have reported. In the spring of 1878 I had to pull the wires out of 200 frames, just as that British cousin had to do, and found it a bad job. But I changed my wire and found it better, and have observed that in the cells which failed, the wires crossed the cells and were not adhered to the septum. After a while I found, by giving it much time, I could obtain a perfect frame of brood, on the plan I gave in the BEE JOURNAL for July, 1878.

Since that time all my frames have been wired. The points I noted were these: The wire must be fine tinned wire; the wire must run the way the line runs in the foundation, and be placed along the line of cells and well pressed into the flat side of the septum. Those who will take all this care, can have every cell laid in, and the eggs hatched. It was the trouble to do all this that induced me to invent the press to put it all there at one impression, and I believe no one has complained of the brood dying, or being skipped by the queen, where the frame was filled on the press. If so, I would be glad if they would speak out.

All foundation in the wired frame has the center of the comb in the center of the frame, whether the frame hangs exactly perpendicular or not. The wired frame was invented to avoid sagging; it will not only do this, but I am more than paid for all extra expense by the nice straight combs, that do not break in handling or in transit, or by sitting in the sun; and where the extractor is used, only those who have used the wired frame can appreciate the great advantage of it.

Hoopeston, Ill., Nov. 18, 1880.

For the American Bee Journal.

Adulteration of Syrups, etc.

S. K. MARSH.

Last year I had 4 samples of syrups analyzed by Prof. R. F. Kedzie, at the laboratory of the Agricultural College of this State. The syrups cost, respectively, 54c., 60c., 65c. and 80c. per gallon, the average price being 65c. per gallon. I requested him to compare the price of the actual sweet the syrups contained with extracted honey, at 10c. per lb., and here is the result:

No. 1.—65c.	per gal.—	30.91	per cent.	glucose	sugar.
" 2.—54c.	"	39.01	"	"	"
" 3.—80c.	"	35.56	"	"	"
" 4.—60c.	"	33.44	"	"	"
Average		34.73	"	"	"

A gallon of syrup weighs about 11½ lbs., and contains about 4 lbs. of glucose sugar on an average, and costs 16¼c. per lb. of glucose sugar.

BUT ONE PURE IN TWENTY-ONE.

Four analyses of honey gives an average of 83.01 per cent. of sugars, 2.01 per cent. of which is cane sugar, the remainder being grape sugar; 11½ lbs. of honey at 10c. per lb. costs $1.15, and contains 8½ lbs. of sugars, which cost 12½c. per lb., while the glucose sugar in syrups costs 16¼c. per lb. Of course, there is a great difference in syrups. Some, doubtless, are better than those I sent to Prof. Kedzie, while some, no doubt, are poorer; but the following will give some idea what a small chance we have to get any pure cane syrup: Prof. Kedzie says: "During the past year I have examined 21 specimens of syrups. Of these only 1 was pure cane syrup, 2 were mixed cane and glucose sugars, and the rest were glucose sugar syrups."

HONEY CHEAPER THAN MIXED SYRUP.

Some of my customers find fault with having to pay 10c. per lb. for honey, when they can buy syrups so much cheaper, but I am now prepared to show them that they pay much dearer for what little poor sweet they get in syrups at the average price, than they do for the sweet they get in honey at 10c. per lb.

Sugars are also being so badly adulterated that this year I have made a little experiment in early amber sugar cane, and think I can raise 150 gallons of syrup to the acre. It fills the place of sugar in nearly every place.

Palo, Mich., Nov. 4, 1880.

From the Canada Farmer.

To Beginners in Bee-Keeping.

CHAS. F. DODD.

Formerly bee-keeping was carried on with "box hives" or "log gums," the insides of which were a complete mystery. The bees were generally left to themselves until the close of the honey season, when they were brutally smothered with brimstone, and the colony being thus exterminated, its stores were appropriated to the use and luxury of the owner.

Now we have the movable frame hive, which gives the bee-keeper access to the interior of the colony, perfect control over it, and liberty to take the surplus honey without killing the bees. With such hives the loss of absconding swarms can generally be prevented, queenless colonies can be re-queened, and those that are weak can be strengthened, by giving them comb, bees or honey.

Bee-keeping well deserves a place among the industries of the farm. As it is wise to keep poultry to pick up the waste grain and stray seeds, so it is wise to keep bees to gather the nectar of clover, orchard blossoms and wild flowers that would otherwise go to waste.

The chief trouble with beginners is that they will not go to the slight expense and small trouble necessary to get information on the subject. They buy a hive of bees, about which they know nothing, except that bees can sting and that their honey is nice, and then leave it to take care of itself. It is needless to say that this is a very foolish course to adopt. What wonder that only failure and loss are the result; it would be the same in sheep-raising, dairying or any other line of farming. While, therefore, we advise the farmer to make bee-keeping one of many lines of industrial pursuit, we qualify the advice by urging that it be by no means entered into without seeking information in regard to it.

HONEY REPORT FOR CANADA.

Facts and figures from all parts of the country, indicate that the entire crop of honey for 1880 is but one-half of the usual supply.

Nile, Ont.

For the American Bee Journal.

Fertilization in Confinement.

M. B.

This subject appears to be losing interest with prominent apiarists. It is a little surprising that so many experienced bee-keepers who have studied the habits of the honey bee for years, and have tried this experiment, should pronounce it a failure. It was by diligent study of the nature and habits of the bee I made this important discovery. I have five queens fertilized in a cage made for the purpose. Every trial was a success; I found the dead drone on the bottom of the cage, each time. I returned the queen to the colony and all was right. These five queens are very prolific; their workers are large and handsome, giving entire satisfaction, thus far; what they will do in the future, remains to be seen.

This cage is more nearly adapted to their true natures than any other plan I have seen described. The labor of the hive goes on unmolested, the bees passing out and in as before. No catching, confining or scaring of the queen; she acts upon her own impulses and at the proper time.

If any one has made further discoveries, I would be glad to have them report. Before the work of 1881 rolls round, I will give a full description of my cage and its use.

Fincastle, Ind.

For the American Bee Journal.

Lower Ventilation in Winter.

WM. CAMM.

After our cold snap in November, I raised some of my hives and found an unusually large number of dead bees on the bottom boards and on the lower part of the combs and frames, also considerable ice on the stands. I am forced to think that one of the greatest points in wintering anywhere, or in any repository, is to keep the hives perfectly dry. I notice this winter that some of my hives that had 12x12 frames cut down to 10 in. deep, and hives left unchanged, so that there is a space of 2⅝ inches between the bottom board and bottom bar of frames show no ice, and few dead bees, though the hives are no better constructed or sheltered than others wherein there is such a great mortality.

I am at a loss to account for the recommendations of Shuck and others, who are presumed to have experience, to have a hole in the bottom board 6 inches square, covered with wire-cloth, for the purpose of lower ventilation. I tried this in my earliest experiments, and have one such hive left yet, but it was a complete failure, for though there was a slide underneath to darken the aperture, open or shut the bees sealed up every mesh in the wire-cloth. Nor have I been able to cover my bees with anything that they would not enamel with propolis, unless it was already enameled.

The double-width hive, with division board and roof, or a set of Huber frames surrounded by an outer case, are the best "contraptions" I know of, and if these were kept under a shed so that in winter they could be covered with straw, and the straw kept dry, it would be the best we could do, and the easiest and cheapest way of doing it.

Winchester, Dec. 6, 1880.

For the American Bee Journal.

How to Make and Feed Good Candy.

F. C. BENEDICT.

As winter is upon us so early and so severe, I fear many of our little pets will want for stores before next May, and some may be glad to know how to make candy that will be right, without any guess-work.

Take coffee A sugar 4 lbs., water 1 lb. (add wheat or rye flour 1 lb., if you wish to stimulate brood-rearing), put in a pan over a moderate fire (being careful not to scorch it), boil for 20 minutes; then place it in a pan of cold water or on snow; stir until quite stiff, which will make it fine grain; place in frames that will cover one-half the brood chamber, leaving a space under the candy so that the bees can get at the whole surface; place the blanket over the other half of the brood chamber, and the chaff cushion over the whole, and they are in fine shape. Moisture enough will gather on the candy that the bees can take it readily, and the balance will escape through the quilt and cushion. As this candy may be given any time during the winter, when the weather is mild, do not let your bees starve from neglect, nor poison them with grape sugar.

Perry Center, N. Y., Dec. 13, 1880.

For the American Bee Journal.

Bees Deserting Winter Quarters.

D. S. KALLEY.

MR. EDITOR: Will you, or some of your readers, tell me what is the matter with my bees? I put 16 colonies into winter quarters on their summer stands, wrapped well in straw and chaff, on the 20th of October, and all through November and until now (Dec. 8) they are coming out and flying away, leaving plenty of honey to winter on. Great numbers come out on the platform after night and die by the handfull; four colonies have all absconded. I am perplexed over the matter. The coldest mornings we have had, they come out at daylight and fly away. Success to the BEE JOURNAL; I like it well.

Mansfield, Ind., Dec. 8, 1880.

[Without knowing the exact manner and amount of packing, the appearance and condition of the combs and honey left in the hives, and peculiar motions of the bees on coming out, it is impossible to more than surmise or guess at the cause.—ED.]

From the Prairie Farmer.

Honey-Wash for the Eyes.

WILL. M. KELLOGG.

Honey is an excellent remedy for inflammation of the eyes. In 1878 I was afflicted with inflammation of the right eye, which became very painful. Mr. C. O. Perrine, of Chicago, told me honey would cure my eye. His method was to put a few drops of pure liquid honey into a teaspoonful of lukewarm water, and stir with the finger until thoroughly dissolved, then lie down and drop three or four drops into the eye, lying still a few minutes, then wiping the face and eyelids, but not washing out the eye. Repeat this 4 or 5 times a day, and the last thing before going to bed. I followed directions faithfully, got immediate relief, and in a few days the inflammation was entirely gone.

Oquawka, Ill.

Letter Drawer.

Foul Brood.—In the proceedings of the Convention at Cincinnati, I see Mr. C. F. Muth gave his plan for treating foul brood, to which I can heartily subscribe. I bought some old combs last spring that bees had died on. The result was that I had one case of foul brood. I took a new hive and filled it with foundation and fed the bees with honey containing a little salicylic acid mixed with it. This fall it was as good a colony as I had in the yard. Bees hardly made a living in the early part of the summer, but they did splendidly in the fall. I am well pleased to know we are to have weekly visits from the BEE JOURNAL. Long may it live.

L. A. PENNOYER.

Winona, Minn., Dec. 2, 1880.

Late Breeding.—I can remember no time when bees presented such activity so late in the season as they did this. As late as Oct. 10 they gathered honey with great profusion from asters, red and white clover. In the first week in October the bees gathered more honey than they did during the August drouth, and by an examination, I also found that a majority of my colonies were then rearing brood to a great extent and in some cases the queen was then laying. Does this indicate a good winter for bees? The great progress now in bee-keeping is not lacking here. Mr. E. Markel, an old bee-keeper of 15 years' experience, formerly used the common box-hive, but now uses the Langstroth, with all other additional improvements in the apiary. He has partially Italianized his apiary. It is a great credit to him to bring such fine honey in 2-lb. sections to the LaCrosse market; the AMERICAN BEE JOURNAL is his constant guide in the mangement of his apiary. I am glad that we are to have a Weekly paper during 1881. It has long been needed, and I hope all the old subscribers to the AMERICAN BEE JOURNAL will promptly renew their subscriptions, and thus show their appreciation of this "new departure" of the Editor.

L. H. PAMMEL, JR.

LaCrosse, Wis., Nov. 26, 1880.

[This is a good idea; no one can show their appreciation in a better way than by promptly renewing their subscriptions for the Weekly for 1881.—ED.]

Preparation for Winter.—I have just finished putting my bees into winter quarters. They are nearly all in fine condition to go through the winter, having an abundance of sealed honey and a fair amount of bees. I winter them under a shed, facing the east. I contract the brood-chamber, by use of division-boards, and then pack straw or leaves around them and on top. I think queens may be too prolific. Several of my hives were overflowing with bees during August and September, and two of them threw off large swarms. All of these are now poorer than others not having so many bees at that time. The abundance of bees consumed the spring supply of honey and were not able to gather any in the fall. I have recently traveled over parts of six counties of Ky., and find many colonies in a poor condition to stand a hard winter. Unless they are well cared for, and freely fed, many merry hives will be silent in death long before spring. When, Oh! when will farmers give their bees the same care they do other stock on the farm?

L. JOHNSON.

Walton, Ky.

Report for 1880.—We started the season with 240 colonies in good condition. Our surplus boxes were put on early and everything was done to secure a crop of honey that could be. During fruit bloom and white clover, bees gathered enough to keep even. On basswood they filled their hives. Nights were cool all spring and summer till July, then we had warm nights when there was no bloom, cool nights all fall. Our surplus, therefore, from 246 colonies is 10 lbs. of honey and 1 swarm, and that 10 lbs. is honey-dew and not honey—the nectar of flowers. Of all conditions for surplus honey, give us *warm nights*, for then the flowers secrete nectar. We obtained but little honey during a season when we had cool nights. There are, however, some good features about this bee business, when we have no honey crop, *i.e.* we have plenty of empty hives, sections, separators, foundation, glass, etc., to run us for many years to come if we do not use more than we did during the last two seasons.

D. D. PALMER.

New Boston, Ill., Nov. 14, 1880.

Mustard Plant.—We cannot keep up with the times in keeping bees without the BEE JOURNAL. The honey season for 1880 was good in this locality. Can we get mustard to blossom by the 15th or 20th of June, if sown very early?

A. A. DECKER.

Granger, Wis., Nov. 19, 1880.

[Of course you can.—ED.]

My Report.—I started last spring with 44 colonies and I have at present 54, nearly all in good condition for winter. My expenses were $41.50 and my income is about $22.00 for honey, and the increase of 10 colonies of bees. It was a poor year for bees here.

JOHN BOERSTLER.

Batchtown, Ill., Nov. 21, 1880.

The Mitchell Hive.—Do not stop my JOURNAL if I should not get you the money by the first of January. Put me down for the Weekly JOURNAL for 1881; I cannot do without it. My bees are packed for winter on the summer stands with 12 inches of straw around, except in front. I am using the Mitchell hive but have never yet paid $5.00 for the privilege of using and do not expect to. I am glad at the prospect of getting the BEE JOURNAL every week.

CALVIN HOLLOWELL.

Dunreith, Ind., Nov. 23, 1880.

[Certainly; if *requested* to do so, we will cheerfully send on the BEE JOURNAL and give a few month's time. We do not desire to be unaccomodating—but cannot do a general credit business; still there are exceptions to all rules. If any one desires the Weekly BEE JOURNAL and it is not convenient to pay for a year at once, they can send $1.00 for 6 months or 50 cents for 3 months. It costs no more in that way, except the trouble and postage. For all fractions of a dollar send one, two or three-cent postage stamps.—ED.]

Side Storing.—This season I have had another chance to test the utility of side-storing. We had no honey until Aug. 20th, when we knew it was too late to get two crates of honey from any hive, but most of our colonies would more than fill one crate, hence I could not "tier up." Here is how they did it in those hives with 15 frames surrounding the brood-nest, they not only gave me one beautiful crate of honey, (35 lbs. net.) but did from $5 to $10 worth of work in the side chambers. None offered to swarm, while those in other hives took the swarming fever just in time to ruin my prospects for honey. I have 40 colonies in such hives, and would be surprised to find one dead next spring.

HIRAM ROOP.

Carson City, Mich., Nov. 25, 1880.

Well Pleased.—FRIEND NEWMAN: I read everything I can get hold of pertaining to bees or bee men, and I deem you the most devoted and unselfish friend the bee-keepers now have. I am a stranger to you, though I have ever been your most sanguine friend since I first commenced taking the AMERICAN BEE JOURNAL, over two years ago. I was first induced to subscribe for the JOURNAL through Mr. D. Kepler, a neighbor and friend of mine, who was at that time your fast friend, and recommended it to be the best bee paper published, and which no bee-keeper could afford to do without. After reading the JOURNAL 2 years, I find that his "words and advice were good and timely," and I shall always remember him gratefully for introducing to me the best bee paper and adviser on everything pertaining to bees and the interests of bee men I ever saw. I owe what little bee knowledge I have principally to the AMERICAN BEE JOURNAL and its advertisements; and I shall ever "speak well of the briidge that carries me safely over."

JOS. H. FISHER.

Napoleon, O., Nov. 17, 1880.

Caution to Dealers.—A little over two months ago I received my first lesson, and I think the last one while I am in the supply business. Mr. W. L. Woodward, formerly of Salford, Ont., wrote to me stating that he had gathered up for me 275 lbs. of beeswax. I offered him 28c. per lb., cash on delivery. He thought as we had dealings with each other the last 2 years, I ought to remit first, which I declined to do, as it would amount to $77, we being strangers to each other personally. Finally, he said if I would remit $28, he would forward the 275 lbs. of wax at once on receipt of the money, at the same time stating that two other parties were after the wax, at the same offer. I remitted the $28 in a registered letter, which he received, and that is the last of it, for he left for parts unknown, as I am informed by people in Salford.

M. RICHARDSON.

Port Colborne, Ont., Nov., 1880.

[We publish the above, as a caution to supply dealers and others, at Mr. Richardson's request. We can sympathise with Mr. R., having had *many* similar experiences. One such swindler, after running into our debt, had the audacity to write thus to us: "Let me give you a piece of advice—never to trust strangers." What a pleasure it would be to do business, if all were honest. But there are black sheep in every flock; dishonest men in every community, and annoyances in every business.—ED.]

Keeping Bees for Pleasure.—My bees (35 colonies) have done very poorly. I fed about half a barrel of sugar during the early part of the season. Bees gathered some honey late in the season, about 10 lbs. to the colony, and put it in combs built in 1879. My bees are in my winter repository, in fair condition. Bees are not my resource, but my pleasure, so I am not as badly disappointed as some. My farm of 450 acres demands my attention sometimes when the bees need it, so I do not expect the largest results.

ALVAH REYNOLDS.

Oneida, Ill., Dec. 8, 1880.

Bees Starving.—I had to feed this fall; all the bees had was comb. I fed them coffee A sugar melted, and I think may get them through the winter safely. This was the worst honey year we have had for a long time. I think this winter will about clean all of the bees out of the old box hives, for I do not think there is any honey in them to winter on. We had lots of white clover, but the bees did not work on it the whole year, for some cause or other. I suppose there was no nectar, and it was so dry that bees obtained nothing from golden-rod; it just burned up, without blossoming out full, and I have had a siege of feeding. My bees will not pay expenses this year, but still I live in hopes of a good honey crop next year. Success to the weekly JOURNAL. I could not do without it for twice its cost.

R. L. AYLOR.

Waterloo, Ky., Dec. 8, 1880.

Wintering Bees.—I had 20 colonies last spring, which wintered without loss; increased to 39; sold 800 lbs. of honey in 5-lb. boxes; each colony has on an average 50 lbs. of honey to winter on. I winter in a shed covered with hay, dug in the east side of a hill, 24 ft. long, 8 ft. wide and 6 ft. high, banked up on the north and south, and open on the east; the opening I fill in with hay in cold weather; it is dark and warm; in warm weather I remove the hay for the bees to have a fly without removing them. I have wintered twice in this way without loss.

ALFRED GALE.

Lowell, Ind., Dec. 9, 1880.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN,
Editor and Proprietor,

CHICAGO, ILL., JAN. 5, 1881.

New Year's Greeting.

To-day The American Bee Journal presents itself in a new form—with open page and smiling face tendering its salutation to all its readers. The present form and style of page is the most convenient (all things considered) in which a periodical of its class could be presented; and it will doubtless be esteemed and admired.

The Bee Journal enters upon the present year with a record of unparalleled success as an apicultural journal—started as a monthly *twenty years ago*, to-day it blooms into a full-grown WEEKLY, with a promising future.

Its initial number, published in January, 1861, was the first publication ever issued in America "devoted exclusively to bee-culture," and now it is the only Weekly paper devoted to apiculture in **the World!**

The American Bee Journal was called into being by the necessities of the times. It was designed to advocate the cause of progressive bee-keeping. To its mission it was ably and faithfully dedicated by its founder. To support its "high calling," we are fully determined to use every means within our power. Our watchword is "Progress," and our motto, "Improvement."

We do not desire to boast, but we want every subscriber to feel that the money paid for it is but a tithe of its real and practical value in the management of the apiary, and the production and sale of pure honey.

Its OLD patrons, to whom it has long been a guiding-star, as well as its thousands of NEW readers, will together hail this issue of the Bee Journal with joy. For many years its friends have desired more frequently to see its smiling face and read its refreshing articles. Now their dream of the future is to be realized, and we trust that neither the Journal nor its friends will ever have occasion to regret this "progressive step."

The Bee Journal will take a lively interest in all wise efforts looking to the advancement of the art and science of bee-culture. We shall aim to give "all the news" respecting inventions and improvements in management, no matter where they may emanate—whether in the States, Territories or Provinces of America, or the countries of Europe, Asia or Australia. For some we may be too broad in our views, for others too narrow; to some we may seem too precise, to others too liberal; but no matter whether praise or blame be heaped upon us or our efforts, we are fully determined to give as near "exact justice" to all as our capacity and knowledge will permit.

In giving our readers "the news" the Bee Journal will not lose sight of the fact that opinions and discussions themselves are "news," while presenting facts that *are new*, or even old ones under a new aspect.

One thing must not be forgotten—and the Bee Journal points to it with pride—its contributors are among the most experienced and successful apiculturists in the world. We take this opportunity to express our thanks for their valuable communications, which have done much to develop progressive apiculture, and bring it up to its present standard of excellence.

As a weekly, it will review all the monthly magazines as they come out, giving each proper credit for all extracts and selections—the aim being not to injure them, but to foster and lend them a helping hand, whenever and wherever necessary. It will seek to act in harmony with all, and should it have cause to differ with any, it will do so with the best of feeling, and with convincing but kindest criticism.

Its interest in progressive bee-culture will cause it to labor for methodical work and organization; for these it will continue to exert itself with unabated zeal and devotion. Its influence will continue to be felt for progression, both at home and abroad.

The many friends of the Bee Journal are invited to continue their co-operation and support, and assist in making the present volume even more valuable than any of its predecessors. To one and all we tender our compliments, and fervently wish each

A HAPPY NEW YEAR.

◆

A Christmas Present.—Now that the volume of the Bee Journal for 1880 is complete, we find that we have a few complete sets of numbers, and shall immediately have them bound. As a volume of reference it will be very valuable to the beginner or the more advanced bee-keeper, and will be an excellent Christmas Present for a bee-keeping friend. Price bound in paper covers, $1.50, postage paid; in nice leather and cloth binding, $2.00. Those who wish one, should order early as there are but a few of them to dispose of.

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☞ Dr. N. P. Allen, President of the National Association is contemplating a trip to Florida, Texas or California, to spend the winter. His object is to improve his health, and at the same time to assist in building up local associations and to further the cause of apicultural progression. President Allen has the reputation of being a good dentist, and will incidentally practice his calling to some extent in the places he may visit. Any one in these States interested in scientific apiculture is invited to correspond with him, in reference to his proposed trip. Should he carry out this programme, we hope he will spend a pleasant winter, recruit his health, and also render substantial assistance to the cause of apiculture.

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☞ "Will it injure my bees to be covered up with snow?" This inquiry is sent us by a correspondent. Certainly not; and the more snow the better, providing it is dry snow. Sufficient ventilation for the bees will pass through ordinary dry snow, but with the "wet" or "heavy" article it is another thing. Care should be taken that the entrances do not become closed with ice, and to keep the hives on level or high ground, to prevent them from being flooded when the thaw comes.

Where are we Drifting?

The following advertisement we clip from one of the Chicago daily papers, and is only one of several of a similar character which have from time to time appeared in the same sheet:

> I WANT A MAN THAT IS POSTED IN MANUfacturing margarine or lard-butter, either salary or interest. Address T 95, Daily News. 379126

Now, were a person to advertise for a confederate to assist in making counterfeit money or bogus coin, we doubt not detectives would work the case up and by skillful means soon arrest, convict and imprison the proposed counterfeiter, as he would richly deserve. But as it is only a popular article of food to be counterfeited, it resolves itself into mercantile and manufacturing enterprise, and is "business." Suppose, however, the advertiser finds his "man that is posted" (as undoubtedly he has), and they manufacture "margarine," "lard-butter," or, in plain English, *bogus butter*, using 20 per cent. of good butter and 80 per cent. of fat matter—rendered from cattle, hogs, horses, dogs, and other carcasses taken up from the streets, the stock yards, Bridgeport and elsewhere, and carried "just over the line into Indiana" for manufacture, and brought back to be sold as "pure leaf lard"—and one of our readers ignorantly buys this stuff for genuine butter, and innocently pays for it with counterfeit money (which is as genuine as the butter he buys), he will immediately be arrested, and the *innocent* butter-vender becomes the most indignant and clamorous prosecutor.

This matter of food adulteration is nothing new. The question no longer is "What is adulterated?" but "What is pure?" Tea, coffee, spices, baking-powder, sugar, syrup, honey, flour, vinegar, liquors, drugs, medicines, oils—everything, even butter and cheese! But who is at fault for all this, except the apathetic public? For many years honest bee-keepers have suffered in two ways from the adulterous tendency of the times—first, from being brought into competition with glucosed sugars and syrups; and, second, from being obliged to sell in a market flooded or ruined with glucosed honey. True, in two or three States they have succeeded in getting well-meant but mistaken laws passed prohibiting the sale of mixed honey; but these were and still are inoperative dead-letters on the statute books. Nowhere have they received the support and co-operation of the masses of the people, and we have yet to hear of the first attempt at their enforcement.

Never has the subject of food adulteration received the attention it has urgently demanded, till now when the disgusting but most unhurtful side of the question has been presented. Glucose made from refuse corn was sold as pure sugar in every grocery in the land, and even the poisonous acids used in its manufacture scarcely provoked a remark; glucose syrups, as innocent of contact with sugar-cane as the butter and cheese of to-day are innocent of origin from the beastly cow, were temptingly poured as silver-drips over the warm cakes with which to poison our little ones. Candies, beautifully painted yellow, green and red, formed into attractive toys, lozenges and hearts, and inscribed with Christian mottoes and love-tokens, were made from *terra alba* (white earth) and glucose, with which to plant the germs of lingering disease in the new generation. Jellies, beautiful to behold, supposed to be made from the rarest and best fruits, were sold from grocers' counters at less prices than honest apple-parings could be purchased. Every bushel of corn, that in the days of our grandfathers would have made but a gallon and a half of honest whisky, now, by the use of poisonous acids and chemicals, will make several times that amount, and an hundred times the amount of delirium, pauperism and crime. Drugs and medicines, on the purity of which many lives are dependent, have been mercilessly adulterated, and the honest, time-honored and venerated physician, in his prescription not having kept pace with the latest adulteration, loses his patient and is berated for a want of medical skill.

We want no special or local laws to forbid and threaten to punish adulterations. The people will not be satisfied with a law which declares it a crime to make butter and cheese from the fatty portions of hogs, cattle or carrion, and leaves the inference to be drawn that it is honest to sell as pure and wholesome sugar and syrup made from glucose; we do not want a legislative enactment which makes it a misdemeanor to manufacture and sell as "strained honey" the product of anything but nectar-yielding flowers, and leaves the matter to enterprise to make maple sugar and syrup from anything that can be flavored and colored. We do not want any law that will punish swindling, and fraud, and obtaining money under false pretenses in one locality, and to countenance the same in another. We do not want a law which is vindicated when the makers of bogus butter are punished, and allows all kinds of counterfeit and even poisonous food to be sold under every other name but the proper one.

We *do* want a law as general and comprehensive as the government itself, to punish *all* fraud in the sale of food; we want it as applicable in New York as in Chicago; as applicable in the West and South as in New England. We want a law as easy and certain of enforcement as any other police or sanitary regulation. We want a law which will guarantee to every purchaser that he *is buying just what he calls and pays for*. Each special law is a stumbling-block and hindrance in the way of a general law. Every local law makes general legislation more difficult to obtain, and but adds to the long array of inoperative enactments. If parties must make vile compounds, oblige them to be sold for just what they are. The time is in the near future when these laws will be irresistibly demanded of Congress, and until that time comes, the already over-indulgent and heart-sick public must suffer and bear.

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Bees in Kansas.—We have received the third quarterly report of the Kansas State Board of Agriculture. In it we find that only about one-third of the counties of the State report a fair crop of honey. Brown county has 198 colonies of bees, which produced 6,983 lbs. of honey and 150 lbs. of wax. This is an excellent report, and "Brown" is evidently the banner county of the State for honey production. Doniphan county reports from 10 to 50 lbs. of honey for each colony. In another county 65 lbs. are given as the average.

Stingless Bees of South America.

In the report of the Southern California Bee-Keepers' Association, on page 6 of this JOURNAL, mention is made of an article from the New York *Argus*, on the "Stingless Honey Bee;" and we have a circular on our desk from Mr. Hawley, of Rochester, N. Y., advocating the formation of a "Stingless Bee Association." In it Mr. Hawley evidently refers to the article in the *Argus*, as its parent:

> "On the 15th of September last the undersigned published in an Albany newspaper an article on the subject of 'Stingless Bees,' which, so far as I am aware, was the first intimation the bee fraternity of the United States had that there existed anywhere on the habitable globe a species of the honey bee that have *no stingers*....... By accident the writer of this was first made acquainted with the fact that this singular species of bees existed; then by reading history, travels, and personal inquiry, the fact was demonstrated and proven that the species really existed.
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> "Then, by correspondence, these further facts were elicited: That these bees are indigenous to Brazil, south of the equator, inhabiting a climate similar to that of Italy, and with surroundings very like those of that country; that, with a single exception (where a French sailor, having some knowledge of bee-culture in France, had for a few years been conducting an apiary on a very primitive scale—his hives being cut from the forests with the bees already in, hauled and set them up at his cabin—and, to obtain the honey, he kills the bees and appropriates their stores; depending upon increasing his colonies by natural swarming), no one in the whole empire paid any attention to the cultivation of bees, and for this reason it would seem necessary, to order to introduce them here, that some competent person make the trip to South America and bring them here."

Mr. Hawley is rather unfortunate in his statement that the publication of his article "was the first intimation the bee fraternity of the United States had that there existed anywhere on the habitable globe, a species of the honey bee that have no stingers." Evidently he has not read the AMERICAN BEE JOURNAL, or he might have seen in Vol. I., pages 234-5, *published twenty years ago*, a discussion concerning their utility. At the close of this article, the late Mr. Samuel Wagner, our respected predecessor, made the following editorial comment:

> "The Mexican and South American stingless bees might probably be made a source of profit in their native latitudes, if their instincts and habits were thoroughly studied and well understood. They are not suited to northern climates, and cannot be preserved here, as mere curiosities, without great care and difficulty."

Page 54 of Vol. II., contains a descriptive article on bees and bee-keeping in Brazil. On pages 24, 25 and 26, Vol. IV., is a very interesting article on the habits of the Mexican bees. On page 179 of Vol. V we find a description of bees in Yucatan, concluding as follows: "They (the log hives) are well arranged under sheds erected for the purpose—opened monthly and the honey extracted. They do not yield so much honey, or of so good a quality, neither are the bees as lively as those of the north. Their bees have no sting." The following is Mr. Wagner's editorial comment: "These bees are *Meliponas*, and might perhaps be cultivated in Florida, but all attempts to introduce them in the North have hitherto failed."

Last year's volume of the BEE JOURNAL contained an article on bee-keeping in Brazil by Mr. Hannemann. It is quite evident, therefore, that Mr. Hawley has not been watching the BEE JOURNAL very closely.

We have no desire to discourage any reasonable attempts to *improve* the race of bees, but we think the facts quoted from former volumes of the BEE JOURNAL are due to our readers, who are appealed to for subscriptions to the importing fund, by Mr. Hawley. It cannot do *any* harm to give all the facts that are known about the stingless races of bees in South America. By all means, let them be imported and tried to the fullest extent. If they are of any value our experienced queen-breeders will very soon ascertain the fact.

☞ We regret to state that Mr. G. M. Doolittle has been very sick for a month past. He is now able to sit up a little. His many friends will be glad to learn of his full recovery.

☞ Three new bee papers are to be started for 1881—one in Wisconsin, one in California, and one in Louisiana.

☞ The pinnacle of the dome of the court house at Gainesville, Texas, was last summer taken possession of by a swarm of bees. They still "hold the fort."

☞ Those who have subscribed for the Monthly or Semi-monthly, and may want to change for the Weekly, can do so at any time by paying the difference.

☞ We send this number of the BEE JOURNAL to all our subscribers for the past year—kindly inviting them, by this notice, to subscribe for 1881.

☞ Those who may have heretofore concluded that the Monthly BEE JOURNAL contained too much to be digested at a single meal, may find consolation in the fact that hereafter it is to be given in FOUR installments during each month, and will be more easily digested, and more acceptable in every way.

☞ To our friends who will spend a few hours in working for the BEE JOURNAL, we have concluded to make the following offers for all clubs sent in before Jan. 31: For a club of 2, *weekly*, we will present a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

☞ An old subscriber asks: "If I subscribe for the Monthly, shall I get all the matter contained in the Weekly, in a condensed form?" No; subscribers for the Monthly will receive the first weekly number (*like this*) published on the first Wednesday of each month, and will miss the next three numbers. Semi-monthly subscribers will receive the first and third weekly of each month (missing the second and fourth). Subscribers for the Weekly only will get all the reading matter. We advise all to take the Weekly who are keeping bees; it will pay them to do so. Any one who has subscribed for the Monthly or Semi-monthly, can change to the Weekly upon paying the difference.

☞ The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will meet in the Temperance Hall, Freeport, Ill., on Tuesday, Jan. 11, 1881. Mr. T. G. Newman, editor of the AMERICAN BEE JOURNAL, has consented to be present and will deliver a lecture on Progressive Bee Culture. Several other prominent bee-keepers are expected to be present. A general invitation is extended to all interested in bee-culture to be present.

J. STEWART, *Sec.*

AMONG OUR EXCHANGES.

GLEANINGS.

Novice is about to issue "Our Homes" in pamphlet form.

Doolittle sold his honey this year at from 18 to 22 cents per pound.

Novice has started a 5-cent lunch counter at the depot in Medina, O.

A man by the name of King, in Northern Georgia, claims to have a patent on division boards, and threatens to prosecute those who use them. Novice emphatically, but truthfully, denounces this claim as absurd. There is no patent on division boards; never was, and never can be.

Chinese Bees.—Mr. C. D. King, a missionary in China, expects to return to America and bring some Chinese bees with him. He describes them thus:

"These bees in the bottle before me are more slender, and but little longer than the common house-fly, which is so plentiful with you. This latter pest is as scarce here as are the bees themselves, if not more so. The head and thorax of these bees before me are black. Their waists are a reddish yellow, but the abdominal portion for more than half its length is black, marked with three white stripes across the back, with a slight pencil-mark, apparently meant for another stripe, near the extremity. On the under side, the yellow predominates, and takes the place of the white, so that they seem to have black stripes across the yellow. Their wings are white and transparent, with a very delicate brown stripe along the outer edges. By looking closely, one can also see a brown net-work traversing the delicate white wing. On the under side, their black heads and thoraxes seem to be covered with a white down or fuzz."

Bees and Honey in Florida.—W. S. Hart remarks: "The honey flow here, instead of being continuous, is divided into 4 seasons, with 2, 3 or 4 weeks of drought between. The honey here is as smooth as any in the North, and most of it as light-colored; in fact, our cabbage palmetto honey, which forms the big crop of the season, is *so smooth* and *so light-colored*, that many fear that it will not sell in the North, on account of consumers thinking it a manufactured article. We have but one crop of dark honey, and that is the last one of the season, and is used to feed back during the next spring. As to the profits here, I fail to see why they should not be far greater than in the North, as we have to go to no expense to winter, and we never lose on account of the cold. The bees increase very fast, and we *never* have a year without a good crop of honey. We can ship our honey to any of the big markets by water, which is always cheap transportation; and as we have more good pine growing in Florida than in any other State in the Union, hive lumber is cheap."

BEE-KEEPERS' MAGAZINE.

Comb Foundation.—Dr. Brown remarks: "A correspondent desires to know whose foundation is the best. As there are 'many persons of different minds,' it is quite likely that *all may be best*. I have tried the flat-bottomed, the wired, that with tin base, that made on the Root machine, with only the outline of the side-walls, and that made on the Dunham, with the high side-walls and with sufficient wax around their base to enable the bees to complete the entire cell-wall, and I must say, without a moment's hesitation, that the Dunham has, thus far, proved the most satisfactory. I have not found it to sag; the bees soon set to work on it and build it out in much less time than the other takes, and consequently it is soon filled with brood.

"While the Dunham, I believe, is sold for the same price as the other sorts, it is really worth more, from the fact that it is more difficult to make. The deep depressions in the rolls of the machine, to impress the high side-walls, make the sheets of wax more difficult to deliver from the rolls than when made on machines that give the mere septum of the comb and the mere outlines of the base of the cells.

"By the use of foundation we can always secure straight combs, which is a great desideratum in a large apiary where it is often necessary to exchange frames with other hives."

Two Queens in a Hive.—A. H. Fradenburg says: "I think I can throw a new ray of light on this subject, which is now-a-days attracting some attention among bee-keepers. I have come to the conclusion that there are but just two causes or conditions in which two laying queens will be found in a hive at once—the first is the superseding of an old and failing queen, in which case each queen seems to have a sort of reverence for the other; the second condition is that the bees in one part of the hive do not know at all times what is going on in another part of the hive. This assertion may raise a storm of opposition among the fraternity, but I believe I have the positive evidence to support it."

BEE-KEEPERS' EXCHANGE.

The Future for honey production, says H. A. Burch, "wears a rosy tint, since it is more than probable that all the honey we can raise for years to come, will command good paying figures. Honey at 10 cents per lb. pays the specialist who is favorably located, better than wheat at $1 per bushel does the farmer; and when honey sells readily at 18 to 20c. per lb., the relative profit will be obvious to all. Every occupation is invested by many difficulties, which must be met and overcome; that the apiarist is, we feel sure, as free from them as any other calling."

Referring to D. A. Jones' plan for obtaining surplus, the editor says: "We have experimented a little in the direction indicated by friend Jones, and cannot therefore think highly of his plan. For in the first place, we do not understand in what way the yield is to be greatly increased, and secondly, the perforated zinc or tin will not materially hinder the bees from depositing pollen in the frames or boxes thus placed between the brood. Holes through which the queen cannot pass, greatly retard the passage of the workers, and, if used to keep the queen from leaving with the swarm, the hole covered with perforated material must be from 4 to 6 inches square, or the bees will smother, and in hot weather such an opening will hardly suffice."

BEE-KEEPERS' INSTRUCTOR.

Mr. S. D. Riegel has sold the *Instructor* to W. Thomas & Son, and retires because of other pressing duties. The Salutatory of the new editor is good.

Imported Queens.—The retiring editor, writing upon the desirability of obtaining imported queens, says: "If real improvement is desired, why not get a home-bred queen from a reliable breeder? one possessing in the highest degree those qualities which are so much sought after by our best bee-keepers. I would much rather risk the introduction of a good home-bred queen, possessing the best traits of character, into my apiary, with a view of continued improvement, than an imported one whose traits of character or good qualities are not known."

The National Convention.—The North American Bee-Keepers' Eleventh Annual Convention, which met at Cincinnati on the 28th of September, seems to have been of unusual interest. The meeting was well attended by the leading apiarists of the country, and a commendable degree of interest was manifested by the members of the Association. Everything passed off with zeal and harmony, and much was done that is calculated to encourage bee-keepers all over the land to move forward with greater confidence in the work in which they are engaged.

Conventions.

Madison County, Ind., Convention.

Quite a number of the most enthusiastic bee-keepers of Madison county met in the City Clerk's office at Anderson, Nov. 5th. The meeting was called to order by Mr. James Mahan, who stated that the meeting was called for the purpose of forming an association of the bee-keepers of Madison county. He hoped the meeting would be a success. He was satisfied that there were enough bee-keepers in the county to make a good association, if they were called together. There were a large number of bees in the county, but the greater part of them were in box hives, or patent hives of all conceivable shapes and sizes. He was satisfied that this could all be remedied by the forming of an association. He therefore moved that the meeting proceed to a permanent organization, proposing the name of A. J. Davis as President, who was duly elected.

Mr. G. Hall was made Vice President, James Mahan, Secretary, and F. M. Williams, Treasurer. By resolution, the society is to be known as the Madison County Bee-Keepers' Association. A constitution and by-laws, similar to those of the State Association, were then read and adopted. Mr. J. G. Brown was called, and read the following:

Hints to Beginners.

The old opinion, which ought to be entirely exploded, that bees will take care of themselves, and bring us large returns for little or no investment of capital or labor, is still a stumbling block to prosperous bee-keeping.

Ignorance of the business, then, is the cause of a large proportion of ill success. What then is essential, is a thorough knowledge of the business, plenty of application and hard work. Much useful information may be obtained by reading the best bee journals and best bee books, but actual practice in the apiary is indispensable. Many persons are naturally unfit for the business, from carelessness and inaccuracy about their work. I know of no out-door work where so much depends on the right thing being done at the right time and in the right way.

Avoid the common blunder of rushing into bee-keeping just after there have been one or two good seasons. The fact is, that an extra good yield is usually followed by a very moderate or poor one.

Beginners should purchase but a small number of colonies at first, and the bees will increase as fast as their knowledge will increase. Buy always the best that can be found, even if they cost more, for it will often pay you the first season. Spring is the best time to buy bees, for then they are through wintering and you have not much risk, and they will then be a profit to you. Use some good movable frame hive, for with the box hive the best results cannot be obtained.

A very great hindrance to the success of many who would like to have bees, is fear of the sting in handling them. Every beginner should supply himself or herself with a good bellows smoker, for it is as necessary to the bee-keeper as a plow is to the farmer. Then, by a little practice you can handle bees as easily as any of your stock. There is a difference in the quality and prolificness of different queens, and different families of black bees. Some are more vindictive and more difficult to manage than others. The difference is not in the treatment they have had, but in the blood. The same is true of Italian bees. While, as a rule, they are more peaceable and every way more easily handled than black bees, I found in my experience this season that the Albino bees are still more peaceable.

In successful bee-keeping more depends on the bee-keeper than on the hive, or the particular strain of bees; in order to succeed in the pursuit, a good degree of intelligence is needed, but a man may be intelligent in other things, and be a flat failure as a bee-keeper. He must become thoroughly acquainted with the bees' instincts, so as to know with approximate certainty just what the bees will do under any circumstance. I do not believe that any one will succeed as an apiarist who has not a genuine love for bees. The successful bee-keeper must feel enough interest in his bees to know at all times, winter and summer, their exact condition, and he must be careful to do for them what needs to be done, and to do it at the proper time.

As my conviction is in favor of chaff hives, and out of door wintering, I face all the hives to the east or south, with the bottoms of the hives three inches above the ground. I remove all the frames but those covered with bees and put in the division boards each side, or chaff cushions, and also on top of the frames place chaff cushions. Then your bees will stand the most severe winter. But to those who have no chaff hives, I would recommend covering the hives with flax straw or stack corn fodder, and it will amply pay for time and trouble.

Frank L. Dougherty, delivered an address after which the following resolution was passed: "Resolved, that the thanks of this association be tendered Frank L. Dougherty for meeting with, and assissting in the organization of the association."

The meeting then adjourned till 10 o'clock the next day. On re-assembling the minutes of the previous meeting were read and approved. The attendance was much larger than on the previous day. Several good papers were read and fully discussed. There was a great deal of enthusiasm shown. The meeting adjourned to meet on Saturday, December 18, 1880.

JAMES MAHAN, *Sec.*

Southern California Convention.

The Southern California bee-keepers convened at Los Angeles, Oct. 20, at 10 a.m. The President, C. J. Fox, not being present, Mr. J. S. Harbison was elected temporary chairman, and N. Levering Secretary.

Mr. Levering stated that the object of the meeting was to give an opportunity for exchanging ideas, and the more thorough organization of the honey producers. The boundaries of the district were decided to be the same as the boundaries of the Fourth Congressional District.

On motion, the chair appointed a committee on programme for business of convention, as follows: L. S. Butler, Frank Flint and C. N. Wilson.

The election of officers resulted as follows:

President—J. E. Pleasants, of Anaheim.
Vice Presidents—J. S. Harbison, of San Diego; A. W. Hale, of San Bernardino; J. W. Wilson, of Pasadena; R. Wilkins, of Ventura; Frank Flint, of Santa Barbara; G. M. Harington, of Visalia.
Secretary—J. A. Haskell, of San Fernando.
Corresponding Secretary—C. J. Fox, of San Diego.
Treasurer—E. F. Spence, of Los Angeles city.

Mr. Flint was called upon and read the address of C. J. Fox, after which a motion was made and carried that the address be placed on file and furnished for publication.

President's Address.

FELLOW BEE-KEEPERS:—It has been found by experience that, in most occupations, co-operation is exceedingly useful, and of late years almost a necessity. It is especially advantageous to farmers and producers. There are fruit growers', wool growers', wine growers', and other associations, the members of which meet from time to time for consultation and to arrange plans for mutual counsel and assisstance.

During the past five years, the bee-keepers all over the country have formed county, State and national associations, at times and places, where much good has been done by exchange of ideas and opinions, and by comparison of different methods of managing bees, securing honey, and marketing it in the best way.

Keeping bees and obtaining or, as we say, raising honey have been practiced by people in all ages and countries, and at times in the past, honey has been a more important article of food than now, when so many other articles are used as sweets, few of them, however, so healthful as pure honey is.

But past history does not inform us whether bee-keeping was ever pursued as systematically as it has been during the last five years. All of us can remember the commencement of the present era of scientific bee-keeping and its wonderful progress from small beginnings to its present position, as one of the important industries of our country, and especially of Southern California. San Diego county, where I reside, has the largest number of bee-keepers, and produces the largest amount of honey of any county in the State, or perhaps of the same population in the world, and I may be pardoned for referring to its progress as an illustration. The business commenced in 1871 by Messrs. Harbison & Clark bringing there 100 colonies of bees. There had been a few there before, but scattered about, very little attended to, and only used for home consumption. This was the first attempt at establishing an apiary or making a business of bee-keeping. At present Messrs. Harbison & Dowling are owners of over 3,000 colonies of bees, and the total crop for the present year is 310,000 pounds. They have shipped to the various markets in the Eastern States and California in the year 1880, 265,000 lbs. and have on hand yet to ship about 33,000 lbs., all comb honey, except about 2,000 lbs. In 1874-5 a good many others engaged in the business, and in 1878 there were over 20,000 colonies of bees in the county, and the export of honey exceeded 2,000,000.

The following figures represent, as nearly as I can obtain them, the condition of the business the present year: San Diego county had March 1, 1880, as returned to the assessor, 331 bee-keepers, 15,621 colonies of bees, and has exported, including the amount now in store in the city of San Diego, 418,700 lbs., of comb honey and 488,700 lbs. of extracted honey in barrels and cans. A considerable amount has not been brought in, and the total product will be about 1,000,000 pounds. I could not obtain exactly the number of colonies of bees at present, but Mr. Horbison and I estimate it at from 24,000 to 25,000.

Santa Barbara county, by a report from Mr. Frank Flint, Secretary Bee-Keepers' Association, had March 1, 1880, 31 bee-keepers, 1,757 colonies of bees, and has produced for export this season 257,800 lbs. of honey, nearly all extracted. The number as estimated October 1, is 3,655 colonies.

Ventura county, by a report from R. Touchton, Secretary of the Bee-Keepers' Association, had last spring 70 bee-keepers, about 4,600 colonies of bees, and has produced for export 700,000 lbs. of extracted honey. The number of bees at present is estimated at 7,000 colonies.

San Bernardino county, by report from M. Segurs, Secretary Bee-keepers' Association, has now about 6,000 colonies of bees, and has produced about 350,000 lbs. of extracted and 100,000 lbs. of comb honey.

The totals from four counties show that there are at present over 41,600 colonies of bees, and that the product the present year is about 2,315,000 lbs. of honey, or 1,157 tons. The return from Los Angeles county would very much increrse these figures.

An industry that has grown in so short a time to such large proportions, naturally is not so well conducted as one that has been of slower growth. Thus we see a good many different kinds of hives in use, different methods of handling bees, of taking out honey, of packing, shipping, and marketing it, and a good deal of complaint among dealers, of the poor condition it is received in for market, and among producers, of unremunerative prices.

I leave the question of management of the apiary to others more able than I am to discuss it; but, having had considerable experience in marketing, will mention a few points that may be studied with profit. For foreign shipment, a well made, iron-hooped barrel, holding not over 15 to 20 gallons, is the safest, strongest, most easily handled, and most economical package. New tin cans, holding 60 to 100 lbs., and well boxed, are very good, but more costly, and not so acceptable to the European buyers. Small cans, of course, suit the Arizona and other retail trade. It is a mistake to put good honey in old tin cans. The loss by leakage, breakage, and unattractive appearance, more than makes up for the saving in first cost. As to comb honey, the Eastern dealers inform me that small packages sell better than large ones, though I know many think otherwise. At all events, they should be strong, neat and well packed. A great deal of honey loses, not only in weight, but in price, by being badly packed.

In regard to shipment, our railroad freights are so high that we can scarcely ship overland in competition with Eastern producers and realize any profit; but ocean freights are cheap, though slow, and the saving is of itself a good profit to producers.

It is a mistake to overload the market of San Francisco while there are so many others, for it causes low prices and general disappointment. The increase of our industry has been greater than the demand, and every one interested should do all he can to make more markets and increase the consumption of honey.

A good deal has been done in this way. Two years ago I made direct shipments to Europe to the amount of over 150,000 lbs. Although it did not bring as good a price as I expected, yet I learned that but for this and other shipments, the price in San Francisco would have fallen far lower than it did, and would have been nominal.....

C. J. FOX.

Mr. Gilchrist read an article on floriculture, at the same time exhibiting specimens of the different plants, which were placed on file for publication.

Mr. J. W. Wilson being called, read an article on "A Step Backward in Apiculture."

Adjourned until 9 a. m.

THURSDAY, OCT. 21.

President Pleasants in the chair. Mr. Barber's article on apiculture was read and placed on file.

Dr. Galny spoke for some time on various subjects in apiculture.

Mr. Harbison gave some of his experience in the bee business in California, and gave the association many points of interest, both in the management of the apiary, and also in the plan of marketing honey. He thought the mode of putting up honey for different markets should be in different packages. He placed great stress on the proper curing of extracted honey, and in having comb honey in straight full combs and neat, clean frames.

Mr. Levering read an essay on the industry of honey producing.

AFTERNOON SESSION.

Mr. Harbison was requested to write the next annual address, with Mr. Flint as alternate.

Mr. Levering had framed an act to be presented to the legislature, (after such modifications as the convention saw fit to make), for the suppression and extermination of foul brood. The same was referred to a committee, with power to act in the matter, without further instrnction. The committee being C. N. Wilson, L. S. Butler, N. Levering and J. E. Pleasants.

Friday, October 22, 10 a.m. President J. E. Pleasants in the chair. The subject of freights on packages was discussed, and left to local organizations.

The Secretary read an article from the *New York Argus*, entitled "The Stingless Honey Bee."

On motion, the executive committee was authorized to co-operate with the vice-presidents of the different counties in gathering statistics relative to the present crop and also of the crop of 1881; the vice-presidents reporting, from time to time, to the committee, and they in turn reporting the aggregate to each of the vice-presidents. An invitation was extended to all apiarists to communicate anything of importance to the committee.

The meeting then adjourned until fair week, 1881. J. A. HASKELL, *Sec.*

☞ The Michigan State Bee-Keepers' Convention was held at Lansing, on the 8th and 9th ult. Prof. A. J. Cook was elected President, and T. F. Bingham was re-elected Secretary. The proceedings were received too late for this issue, but will appear in our next Weekly.

Welcome to the Weekly Bee Journal.

We give the following as samples of the many words of welcome given to the Weekly BEE JOURNAL:

I, for one, am pleased with the "new departure," and although my subscription runs to August next, I gladly pay the difference between the monthly and the weekly, believing I can more conscientiously welcome its visits. I have long been of the opinion that monthlies were behind the spirit of the times: events transpire so rapidly that to keep posted we must have the press going all the time, and as you have promised us all the cream of the current events, we will mix it ourselves with a little honey, and we shall certainly have a rich feast. I wish the JOURNAL and its editor a "Happy New Year."
JAMES D. CHADWICK.
Louisville, Kansas, Dec. 9, 1880.

The progress of apiculture is assured by the announcement of the birth of the Weekly AMERICAN BEE JOURNAL. I would sooner miss my dinner once a week than do without it. E. DRANE.
Eminence, Ky., Dec. 7, 1880.

Fifty-two times a year is none too often for such a welcome visitor as the AMERICAN BEE JOURNAL.
WM. A. OHAVER.
Monmouth, Ill.

I am highly pleased with the prospect of more frequent visits from my favorite bee paper, and hope you will be amply rewarded in your proposed new arrangement. R. M. TANKESLEY.
Chattanooga, Tenn., Dec. 6, 1880.

I wish you great success in the publication of the BEE JOURNAL weekly. It is a great undertaking—but one we shall all appreciate—to give us fresh apicultural news every week. It is just what is needed, and is *real* progression.
N. P. ALLEN.
Smith's Grove, Ky., Dec. 2, 1880.

The AMERICAN BEE JOURNAL is indispensable. Send me the Weekly for next year. G. N. ASSELTINE.
Gananoque, Ont., Dec. 8, 1880.

Bee-keepers everywhere should give the AMERICAN BEE JOURNAL their constant support, as a weekly, so that it may become a success, and be an advantage to its owner as well as to its thousands of readers. H. H. BROWN.
Light Street, Pa., Dec. 8, 1880.

I am greatly pleased to learn that the BEE JOURNAL is to become a weekly next year. D. A. PALMERTON.
Collins, N. Y., Dec. 9, 1880.

The BEE JOURNAL is so interesting and valuable as a guide to scientific bee-keeping, that I cannot do without it.
H. N. CORNELIUS.
Hope, Ark., Dec. 11, 1880.

The thought of a Weekly BEE JOURNAL is a welcome one here, I assure you.
JAMES HEDDON.
Dowagiac, Mich., Nov. 20, 1880.

I am delighted with the idea of having a weekly paper devoted to bee-culture. J. F. McCOY.
Van Wert, O., Dec. 11, 1880.

I cannot do without the BEE JOURNAL even one week. I think more of it than any paper I take.
H. M. WILLIAMS, M. D.
Bowden, Ga., Dec. 10, 1880.

I am highly pleased to have the BEE JOURNAL come out weekly. More than once have I "delayed operations" for the monthly to put in its appearance. Friend Newman, you have taken a step that the bee-keeping fraternity may well feel proud of; I for one feel thankful that we are to enjoy its visits weekly instead of monthly. Allow me to congratulate you for the enterprise you have displayed. WM. H. GRAVES.
Duncan, Ill., Dec. 6, 1880.

I rejoice that you are going to give us a weekly. If you ever conclude to issue it daily, count on me for a subscriber. I wish you success in the present undertaking. J. S. HUGHES.
Macon County, Ill.

I wish to add my praises on the tone and quality of the AMERICAN BEE JOURNAL. I have long given a silent approval to the many encomiums pronounced upon it. E. L. DRESSER.
Shopiere, Wis., Dec. 13, 1880.

* * *

☞ Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

* * *

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A. I. Root)	3 00	2 75
Bee-Keepers' Magazine (A. J. King)	3 00	2 60
Bee-Keepers' Exchange (J. H. Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (S. D. Riegel)	2 50	2 35
Bee-Keepers' Guide (A. G. Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T. G. Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

* * *

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY.—Light comb honey held at 20@22c. in 1 and 2 lb. sections; in larger packages, 15@18c.; dark, 12@14c. Extracted, 9@10c.

BEESWAX.—Choice yellow, 20@23c; darker, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 17@19c.; fair do., 15@16c.; dark do., 11@13; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 81@82c.

BEESWAX.—Prime quality, 20@22c.
H. K. & F. B. THURBER & Co.

CINCINNATI.

HONEY.—The market for extracted clover honey is very good, and in demand at 10c. for the best, and 7@8c. for basswood and dark honey. The supply of comb honey is good, with a fair demand. We pay 16c. for the best.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY—Comb honey, 12@14c. Extracted, choice white, 7@7½c.; off-colors, 6@7c.

BEESWAX—22@24c., as to color.
STEARNS & SMITH, 423 Front Street.

* * *

Local Convention Directory.

1881. *Time and Place of Meeting.*
Jan. 11—N. W. Ill. and S. W. Wis., at Freeport, Ill.
13, 14—Indiana State, at Indianapolis, Ind.
18—Northeastern Wisconsin, at Oshkosh, Wis.
Feb. 2—Northeastern, at Rome, N. Y.
5, 6—Ashtabula Co., O., at Andover, O.
W. D. Howells, Sec., Jefferson, O.
April 5—Central Kentucky, at Winchester, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
Wm. Williamson, Sec., Lexington, Ky.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

GIVEN AWAY.

We are desirous of obtaining, during the next 12 months, 40,000 subscribers to

TRIFET'S MONTHLY,

and in order to do so, we propose to offer the most liberal terms ever offered by any publisher. We issue a Premium List, which gives a full description of hundreds of **Curious, Beautiful and Useful Articles,** priced at the lowest figures. Our offer is to send the MONTHLY one year to any new address on receipt of **Fifty Cents**, and to give, free of cost, to the person sending the name, fifty cents' worth of any of these articles. We have not room to enumerate all the bargains, but the following are a few samples: **Fifty cents for Trifet's Monthly one Year** and 15 sheets of embossed pictures; or 2 sheets of Decalcomania; or 1 oil chromo, 24x30 in.; or 260 foreign stamps; or 75 chromo cards, no two alike; or 3 panel pictures, 8½x21 in.; or 4 chromo mottoes, 8½x21 in.; or 4 sheets white, tinted, black and silver perforated card; or a fine selection of Christmas cards; or a fine selection of Birthday cards; or 5 sheets of Paper Soldiers, Theater Scenery, Animals, etc., for picture books; or any of hundreds of other things.

We also give for two or more subscribers such premiums as Books, Coin and Stamp Catalogues, Stamp Albums, Scrap Books, Photograph Albums, Mechanical Orguinettes (playing *any* tune by turning a crank), Perforated-Card Ornaments of all kinds, Photographs of all prominent men and women and celebrated paintings, fancy papers of all kinds, etc.

Send for a specimen copy, which will be sent free to any address mentioning YOUTH'S COMPANION Premium List. Address all communications to
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25 School Street, Boston, Mass.

GREGORY'S
SEED
CATALOGUE

My Annual Catalogue of Vegetable and Flower Seed for 1881, rich in engravings from photographs of the originals, will be sent FREE to all who apply. My old customers need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any Seed House in America, a large portion of which were grown on my six seed farms. *Full directions for cultivation on each package.* All seed *warranted to be both fresh and true to name*, so far, that should it prove otherwise, *I will refill the order gratis.* The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn, and scores of other vegetables. I invite the patronage of *all who are anxious to have their seed directly from the grower, fresh, true, and of the very best strain.*
NEW VEGETABLES A SPECIALTY.
12m5 JAMES J. H. GREGORY, Marblehead, Mass.

TO BEE-KEEPERS.

By sending your address to the undersigned, on the back of a postal card, you will receive by mail, free, something *entirely new* in relation to bees.
WM. S. HAWLEY.
12t2 No. 12 South Francis St., Rochester, N. Y.

Friends, if you are in any way interested in

BEES OR HONEY

We will with pleasure send you a sample copy of our

Monthly Gleanings in Bee-Culture,

with a descriptive price-list of the latest improvements in **Hives, Honey Extractors, Artificial Comb, Section Honey Boxes,** all books and journals, and everything pertaining to Bee Culture. *Nothing Patented.* Simply send your address on a postal card, *written plainly*, to A. I. ROOT, Medina, O.

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Is a 32-page, beautifully Illustrated Monthly Magazine devoted to

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C. J. WARD, Editor and Proprietor.
182 CLARK ST., - CHICAGO.

I ARISE
To Enquire
if you have received **DOOLITTLE'S** Bee-Keepers' Club-List for 1881. If not, you can **SAVE MONEY** by sending your address, plainly written, to
G. M. DOOLITTLE,
Borodino,
Onondaga Co., N. Y.

Florida Land--640 Acres.

☞ CHEAP FOR CASH. ☜

DESCRIPTION.—Sec. 4, township 7, south range 7 west, Franklin county, Florida, situated about 50 miles south of the Georgia line, 25 miles west of the city of Tallahasse, the capital of the State, and about 25 miles northeast of the city of Apalachicola, a seaport on the Gulf of Mexico, and within 2 sections (5 and 6) of the Apalachicola river; the soil is a rich, sandy loam, covered with timber.

It was conveyed on Dec. 31st, 1875, by Col. Alexander McDonald, who owned 6 sections, including the above, to J. M. Murphy, for $3,200, and on Sept. 5th, 1877, by him conveyed to the undersigned for $3,000. The title is perfect, and it is unincumbered, as shown by an abstract from the Records of the county, duly attested by the County Clerk; the taxes are all paid and the receipts are in my possession.

I will sell the above at a bargain for cash, or trade for a small farm, or other desirable property. An offer for it is respectfully solicited. Address,
THOMAS G. NEWMAN,
974 West Madison Street, CHICAGO, ILL.

CYPRIAN QUEENS for 1881.

We are now registering orders for these bees for the season of 1881. Send for our Cyprian Queen Bee Circular. H. ALLEY, Wenham, Mass.

EVERETT'S Honey Extractors and Everett Langstroth Hives a specialty. We challenge competition in price and quality. Our circular and price list of apiarian supplies, Italian Bees and high-class poultry sent free. **EVERETT BROS.**, Toledo, O.

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The *British Bee Journal* is published monthly at $1.75, and contains the best practical information for the time being, showing what to do, and when and how to do it. **C. N. ABBOTT**, Bee Master, School of Apiculture, Fairlawn, Southall, London.

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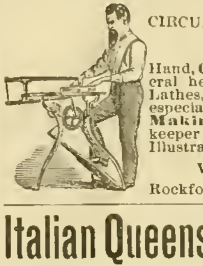

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THE AMERICAN BEE JOURNAL
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☞ A few copies of the first edition of Cook's Manual may still be obtained at this office, at 30c. each or 4 for $1.00.

☞ We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

☞ Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

☞ Use the BEE JOURNAL as a bee does a flower—draw from its well.

* * *

☞ On page 578, JOURNAL for December, 8th line from the bottom of the 1st column, read "3 or" instead of "300."

* * *

☞ In T. F. Bingham's advertisement in the December JOURNAL, the price of a single sample smoker was omitted by an oversight. The price till Jan. 1st is only 75 cents.

Back Numbers.—We need a few odd numbers to complete some volumes of the BEE JOURNAL. Any one having them to spare will oblige if they will let us know which ones they have and the price they will sell them at. We hope no one will send them before receiving our answer, or we may get a lot of duplicates. The following are the numbers we want:

Vol. 2—Nos. 1 to 8, 11, 12.
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Vol. 5—Nos. 2, 11.
Vol. 11—No. 1.
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Single Queen, Tested	**$2 00**
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By mail, safe arrival guaranteed.

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1wly **D. S. GIVEN**, Hoopeston, Ill.

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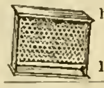

high side-walls, 4 to 16 square feet to the pound. Circular and samples free.
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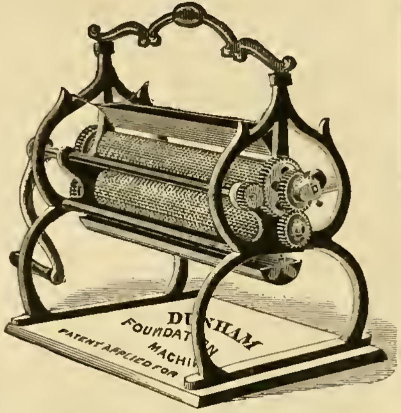

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COMB FOUNDATION,

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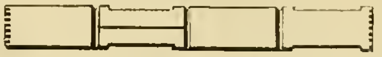
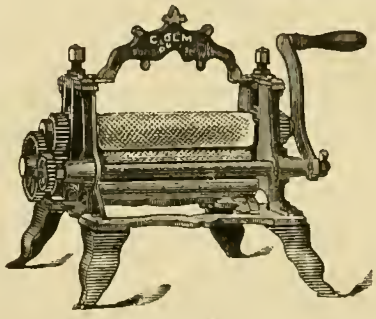


During the month of December we will make the "Boss" Section, any size desired up to 5x6, for $5.00 per 1,000. **JAMES FORNCROOK & CO.**
Watertown, Wis., Dec. 1, 1880. 12-1t

C. Olm's Comb Foundation Machine.

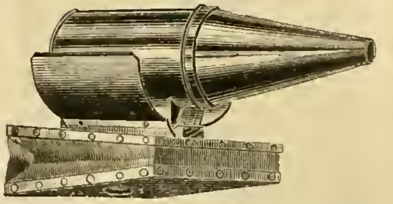


9-inch.—Price $25.00.

The cut represents the 9-inch machine; the cheapest made until now. Send for Circular and Sample.
1tf **C. OLM**, Fond du Lac, Wis.

WANTED.—**A PRACTICAL MAN** to attend an Apiary of 100 colonies of Italian Bees for a term of years.
H. W. ANDERSON,
12t2p Room 5, 99 Washington Street, Chicago.

Ha! Ha! History! Ha! Ha!



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We are the only legal makers, and sell no other supplies. We are very proud of them. Send card for circular or wholesale rates, to

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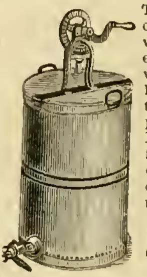
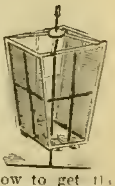
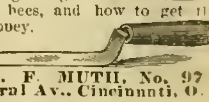




The Extractor is made of all metal and is always ready for use, easily cleaned, and will last a life-time. In fact they have only to be used to be appreciated. Every Bee-Keeper should send for my circular giving details regarding the care of bees, and how to get the most Honey.



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Tested Queens	**$1.50**
Warranted Queens	**1.00**
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As most all the Dollar Queens I sold last year were pure, I will warrant them this year.

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Now Ready.

HEDDON'S CIRCULAR,

Giving prices and descriptions, with cuts, of his

IMPROVED LANGSTROTH HIVE.

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Queens and Full Colonies,

UNEXCELLED BEE FEEDER,

The Three Popular and

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Wired or not, in Langstroth frames or out.

Protectors, Honey Knives, Smokers, Glass, Honey and Wax Extractors, etc., together with the Best Honey-Yielding and Market Garden

SMALL FRUIT PLANTS.

is now ready to mail. Please send at once your full address, Post Office, County and State, to

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Dowagiac, Cass County, Mich.

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A NEW PLAN.—For one dollar we will send full printed directions how to prevent the end of the sheet of wax from adhering to the rolls in making comb foundation. Address,
SMITH & SMITH, Kenton, Ohio.

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THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., JANUARY 12, 1881. No. 2.

THE AMERICAN BEE JOURNAL

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THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR,
974 WEST MADISON ST., CHICAGO, ILL.

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CORRESPONDENCE.

London Journal of Hort.

Bees in Borneo and Timor.

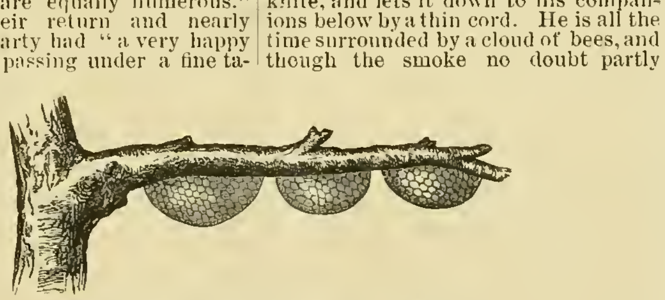
A DEVON BEE-KEEPER.

Having recently perused Mr. Spencer St. John's very interesting work on Borneo, published in 1862, under the title of "Life in the Forests of the Far East," I have made notes of several passages relating to the apian aborigines of that magnificent tropical island:—

Speaking of the agricultural pursuits of the "Sea Dayaks," Mr. St. John says—"They obtain beeswax from the nests built on the tapang tree, and climb the loftiest heights in search of it, upon small sticks which they drive in as they advance up the noble stem that rises above one hundred feet free of branches, and whose girth varies from fifteen to twenty-five feet. Once these pegs are driven in, their outer ends are connected by a stout rattan, which, with the tree, forms a kind of ladder. It requires cool and deliberate courage to take a bee-hive at so great an elevation, where, in case of being attacked by the bees, the almost naked man would fall and be dashed to atoms. They depend upon the flambeaux they carry up with them, as, when the man disturbs the hive, the sparks falling from it cause, it is said, the bees to fly down in chase of them instead of attacking their real enemy, who then takes the hive and lowers it down by a rattan string. The bees escape unhurt. This plan does not appear to be as safe as that pursued by the Pakatan Dayaks, who kindle a large fire under the trees, and, throwing green branches upon it, raise so stifling a smoke that the bees rush forth, and the man ascending takes their nest in safety. Both these operations are generally conducted at night, although the second might be, I imagine, practiced in safety during the day."

With regard to the "Land Dayaks" it is stated that, "To the left of the Sirambau are some very fine tapang trees, in which the bees generally build their nests; they are considered private property, and a Dayak from a neighboring tribe venturing to help himself to some of this apparently wild honey and wax would be punished for theft." This is the first hint that is given of bees being considered in any respect as private property, but the following passage would seem to indicate that the domestication of the honey-bee is not altogether unknown in the island:—"During the night, our rest was much disturbed by bees, which stung us several times, and Mr. Lowe, with that acuteness which never deserts him in all questions of natural history, pronounced them to be the 'tame' bees, the same as he had last seen thirteen years ago among the Senah Dayaks, in Sarawak. About midnight we were visited by a big fellow, who, our guides assured us, wanted to pilfer; but we found next morning that he had come to complain of his hives having been plundered. On inquiry, we discovered the man who had done the deed. He was fined three times the value of the damage, and the amount handed over to the owner."

In a subsequent part of his journal of the same expedition, our author says—"I never was in such a country for bees, they everywhere swarm in the most disagreeable manner, and ants and other insects are equally numerous." When on their return and nearly starved, the party had "a very happy find, for while passing under a fine tapang tree we noticed the remains of a bees' nest scattered about, and every particle was eagerly appropriated. From the marks around it appeared as if a bear had climbed this lofty tree and torn down the nest to be devoured by its young below, as there were numerous tracks of the smaller animals around, but whether the comb had been sucked by the bears or not was very immaterial to our men, who rejoiced in securing the little honey still clinging to it."



Manner in which Bees in Borneo and Timor build their combs.

That wild bees are exceedingly abundant in the forests and jungles of Borneo may be inferred from the foregoing passages as well as from the numerous references to parties of native "wax-hunters," which occur in almost every chapter of the work. Although no clue is given by Mr. St. John to the identity of the Borneon honey-bee, or any information as to the manner in which it builds its nest; I am enabled in some measure to supply the deficiency from other sources.

Some half dozen years ago I received from Mr. Charles Darwin, the distinguished naturalist, a few specimens of bees named Apis testacea (Smith), together with two pieces of their comb. Although these had been brought by Mr. Alfred B. Wallace, the celebrated traveler and author of "The Malay Archipelago," just published, from the island of Timor in the Eastern Archipelago, I believe them to be the same as those which are indigenous in Borneo, so that there appears little reason to doubt that these are the bees referred to by Mr. St. John. "On examination I found them half as long again as Apis mellifica, and their brood comb proportionably thicker. They were in fact, a variety of the magnificent Apis dorsata, which is described as flourishing abundantly throughout the great Indian peninsula, from Cape Comorin to the Himalayas, as well as in Ceylon."

Mr. Darwin subsequently introduced me to Mr. Wallace, to whom I am indebted for the following particulars:—"In Borneo and Timor the wax forms an important article of commerce. The combs hang on the under side of horizontal limbs of lofty trees, often one hundred feet from the ground. I have seen three together as above, and they are often four feet in diameter. The natives of Timor I have seen take them. They climb up a tree carrying a smoke torch made of a split creeper bound up in palm leaves, and hanging by a rope from their waist. They cover up their body and hair carefully, but their arms and legs are bare. The smoke directed on the comb makes the bees fly off in a cloud as the man approaches. He sweeps off the remainder with his hand and then cuts off the comb with a large knife, and lets it down to his companions below by a thin cord. He is all the time surrounded by a cloud of bees, and though the smoke no doubt partly stupefies them, he must be severely stung. While looking on from a considerable distance a few came down and attacked me, and I did not get rid of them till I was half a mile from the place and had caught them all, one by one, in my insect net. The sting is very severe. I should imagine that in Timor the dry season answers to our winter, as the drought is very severe and much of the foliage is deciduous. Eucalypti are the most common trees, and their flowers I suspect supply the bees with their honey. In Borneo combs are placed in a somewhat similar manner, perhaps formed by the same species. The only bee I have seen domesticated in the East is one at Malacca; the natives hang up bamboos and hollow logs for it, but it is, I believe, not a true Apis, as it makes clusters of large oval shells of black wax."

I may add that the Timor bee was named Apis testacea on account of its color, which is very light, and is, in fact, the only point in which it differs from Apis dorsata. When some years ago I compared the specimens in the British Museum, I became impressed with the idea that those which represented Apis testacea were nothing more than newly-hatched, immature specimens of Apis dorsata, and so strongly did I urge my views upon Mr. Smith, that I believe I almost induced him to doubt the correctness of his own nomenclature, until he was afterwards assured by Mr. Wallace himself, that they were really mature and fully-developed adult bees.

For the American Bee Journal.

The Last Honey Season in California.

HOLMES & SCOTT.

As we see a great many individual reports from bee-keepers in the eastern States, we thought a report from this locality might interest some of your readers.

The season of 1879 was a complete failure and left us with 75 colonies in the fall, which the cold winter following reduced to about 54. We then bought 6 weak colonies, together with a lot of hives of the same pattern as our own. We increased these 60 colonies to about 100, and extracted about 7,000 lbs. of honey. This result was not as good as we expected, and not as good as we had a right to expect from the amount of rainfall we had last winter, which gave such bounteous crops of everything else. Our first general extracting, early in May, gave us about 2,000 lbs., from about 75 colonies; the remainder being nuclei too weak to extract from. Our next week's extracting was only 1,200 lbs., and the next 600 lbs.; then we skipped a week and only extracted about 700 lbs.; next we skipped two weeks and got about the same.

Now for the reason, or our theory of it. About the time of our first extracting we had an intense hot wind, lasting several days, and after that we had fogs and such cool weather that honey did not flow much. The whole mountain side was one sea of flowers and our bees, though very strong and working as well as bees ever worked, could not fill up the hives as they did two years before, when we took from our strongest colonies 40 to 50 lbs. of honey per week for several weeks in succession.

Our colonies are now in splendid condition for winter, and our only preparation for keeping them over is to close the entrances to about two inches, shut up the ventilators, put stones on the covers to keep the wind from blowing them off, and if they have honey enough they are all right. In this we have you eastern bee-keepers at a disadvantage.

Now, Mr. Editor, if this is too long, boil it down; if good for nothing do not publish it—but send us your valuable JOURNAL another year, because we like it very much.

Los Angeles, Cal., Dec. 21, 1880.

For the American Bee Journal.

Bees Deserting Winter-Quarters.

E. A. MORGAN.

I notice on page 3 of BEE JOURNAL for 1881, Mr. D. S. Kelley asks why his bees desert their hives at this season of the year. Having had a similar experience two years ago, I traced the cause to disturbance after cold weather had set in. Some colonies will rouse up even though disturbed very little and buzz and heat up the whole interior of the hive, causing a damp sweat to settle on the combs; the bees gorge themselves also, and if the weather continues cold and they have no fly for 15 or 20 days thereafter, they will come out just as he describes; but if they have a good fly soon after it sets them right again. I never knew a colony to live, where once aroused to such a pitch in cold weather that this sweat takes place; I think it also changes the nature of the honey somewhat.

I am conducting careful experiments in wintering, and believe that if well understood, we need have no trouble. My bees had no fly from Oct. 26 until Christmas; being 52 days. They then flew all day and cleansed themselves nicely. There were not over a dozen dead bees in any hive; no bees flew away or fell in the snow, and at night all were quiet and dry. They were all packed on the summer stands early, and had several flights afterwards, before it froze up. The weather during 52 days was severe, several times going as low as 20° and once 34° below zero; one or two showed ice in entrance but nearly all are dry. Will Mr. K. inform us through the JOURNAL, whether his bees have been disturbed in any way since it froze up, also state whether they have been moved from the summer stand to another location, or the hives turned around to face a different direction or not; also at what time the first frosts occurred, causing the queen to cease laying. I am anxious to hear of all disasters of this kind that we may trace up the trouble and benefit ourselves and if possible find the cause.

Arcadia, Wis.

For the American Bee Journal.

Light vs. Dark-Colored Italian Bees.

O. O. POPPLETON.

I see that Mr. Dadant, in a couple of articles published in different bee papers, takes issue with the opinions of several bee-keepers who expressed themselves at the Cincinnati Convention as preferring the light to the dark strains of Italian bees. I have also noticed that for several years back nearly every writer in the bee periodicals, who expressed an opinion at all, seemed to think the dark or leather-colored bees would store the largest amount of honey, other things being equal. My own observation seeming to point so decidedly the other way, led me to make personal inquiries of a large number of practical bee-keepers while at Cincinnati, as to their individual experience, and I think, without a single exception, all I spoke to (some 15 or 20 in number) expressed a very decided preference in favor of the light-colored bees. Several went so far as to say that "The claim that the dark-colored strains of Italian bees are the best honey-gatherers is all bosh, and the reason of the claim being so persistently made is on account of its being so much easier for queen-breeders to rear dark than light queens." Of course I know nothing about the truth of the last opinion.

In my own apiary I have for years kept a tablet in connection with each of my colonies, on which is recorded, besides other things, the grade of both queen and bees. I divide the bees into four grades—the No. 3 are those that I do not feel certain about their purity, on account of being so dark and irregular in coloring, although showing all three bands; the No. 2 are those I am satisfied are pure, but somewhat dark in color; the No. 1 are the light-colored, pure bees, and the X No. 1, are the few colonies that, in addition to being *very* light-colored, are also very regular in color, size, shape and marks. Of course I aim to rear my young queens from these latter.

As I do not rear queens for sale, but devote my attention entirely to the production of honey, I desired to breed the coming year from those queens whose colonies have given me the most honey, and have given especial attention to that point. The difference in favor of my lightest-colored colonies was so marked, that I got in the habit, during the season, whenever I lifted the cover from one of those colonies of saying to my assistant, "Here's an X No. 1 colony; we'll get lots of honey now," and we almost invariably did get more than the average amount of honey from those colonies.

President Newman, in one of his addresses at the Convention, gave *beauty* as one of the essential points of a queen, "So they will attract the attention of the fancier of live stock." This is all right so far as it goes but could he not have given another reason? For the three or four years previous to this last year, I have kept as many bees as I could handle alone without assistance, and it has been one of my studies to so arrange everything about my apiary as to save as much labor as possible. The less time it took me to manipulate each hive the larger number of bees I could keep, and of course the more money I could make. A great many of the operations of the hive requires the finding of the queen, and all bee-keepers will agree with me that the lighter in color the queen, the easier and quicker can she be found on the combs. If this was the only point of superiorty the Italians have over the blacks, it would amply repay us for their extra cost, and of course applies to the difference between light Italian queens and dark ones, only in a less degree. I do not doubt that I would save money by paying one dollar apiece more for young tested light-colored Italian queens than for dark ones, all things being equal.

Williamstown, Iowa, Dec., 29, 1880.

For the American Bee Journal.

Importing Bees from Italy.

REV. A. SALISBURY.

With the bee-keepers of this country it is yet no doubt an important question, whetner we shall continue to import bees from Italy. The National Bee-Keepers' Convention, assembled in Cincinnati in November last, had before it the following as a test question:

Resolved, That the importation of Italian queens is no longer advisable, as an improvement of our present race of bees.

The resolution was laid on the table almost without debate. As "coming events cast their shadows before," it is not hard to divine the impression now resting upon the minds of our leading bee-keepers. The points of excellence so eagerly sought for by the enterprising American bee-master, viz.: Good honey gatherers, longevity, beautiful to look upon, gentle to handle, and good powers of endurance, are to-day so strongly developed in the American improved Italian bee, that Italy is surpassed.

It is no longer a question, the Italian bee of Italy is not a distinct race, yet many of us once thought they were. Later investigation proves the fact that there are as black bees in Italy as anywhere else, even in the vicinity of Rome itself. If the first Italians imported into this country were a superior race of mixed bees, and have been bred up to a standard of higher excellence and beauty in this country, why continue to import inferior queens to our shores? We want to hear from leading bee men of the country on this subject.

If new beginners are taught that nothing will do but queens reared from imported mothers, of course they must have them—must have what they order and pay their money for.

After this subject is thoroughly investigated, if found to be a step backward to drop the importation of Italian queens, let it be continued with great care, always to get the best Italy affords. Demand says what the character of the queens shall be that are supplied. If public demand says give us queens bred from imported Italian mothers, they must have them; or, on the other hand, if from the most excellent and beautiful improved American Italians, they will get them. In a free Republic like this, the people are the sovereigns. While this is and will remain a fixed fact, duty demands that the truth should be given through our bee papers, so as to educate the public mind to demand the best.

Progress is God's law, by infinite wisdom and an unseen hand reached down to earth—a sparkling gem. It is more than probable, with the improved Italians we now have, and the Cyprian and Holy Land bees brought to our country the past season, we will in a few years have the finest bees in the world. Yankee enterprise and genius will combine the most excellent traits of all, and, we hope, drop the imperfections of their ancestry, leaving them on a foreign shore.

Camargo, Ill., Dec., 1880.

Farmers' Review.

Qualities in Bees, Improvement, etc.

PROF. A. J. COOK.

To observing apiarists, and they are becoming very abundant in the United States, it is well known that some bees are far more valuable than others. Some colonies of bees, with no better chances than have others in the apiary, so far as the bee-keeper can see, give, often, two or three times as much honey. The Italians give us more surplus than the German or black bees, and it seems probable, though it may be too early to speak with certainty, that the Cyprian and Syrian races will surpass even the Italian in quantity of their stores.

At the National Convention, which lately convened at Cincinnati, the statement was made that the light-colored Italian bees were superior to the darker ones, or, what means about the same thing, that the Americanized Italians are more valuable than the imported ones. This assertion seems to have been the voice of the Convention, at least the report gives no protest against it.

For one, I do not believe this statement. In fact I feel very certain that it is incorrect. My attention was called to the matter seven or eight years ago. At that time two of America's most able bee-keepers—the late Adam Grimm and Mr. E. Gallup—whose statements on matters pertaining to the apiary rarely needed other support than that given by their own opinion, both spoke out boldly in favor of the darker colored Italians. Since that time I have closely observed, and have always found that they were correct. I believe this opinion is also held by such authorities as Chas. Dadant, G. M. Doolittle, James Heddon and T. F. Bingham. At the Michigan State Convention last week, this opinion was unanimously sustained by all who had observed carefully in this direction.

On the other hand, Mr. T. G. Newman, for whose ability and judgment I have great respect, believes that the so-called "Apis Americana," (of course this should be Apis Mellifica, variety Americana), is to be the coming bee, if it is not so now.

Now I wish to urge an opinion, which I believe to be a fact, and a very important one, too, to the effect that so soon as we cease to import bees we shall find that our apiaries are deteriorating. I have found with Mrs. Baker and others, that when I bought the beautiful light yellow bees which had been closely bred for a long time without any foreign blood being incorporated, that I had got bees that were as valueless as they were handsome. On the other hand, I have found my imported Italian queens, which, though often as black as those of the German race, gave me invariably not only three banded workers, but those that could be counted on for right royal work. I repeat that these queens were very prolific, and their worker progeny always three-banded, though the bands were not of that bright yellow which characterizes our American-bred Italians.

Now I believe this matter is very easily explained and a good reason given for the facts as I have stated them.

All the European bees, and this is peculiarly true of the Italians, Cyprians and Syrians, are bred under the most trying circumstances. From the rapid increase of bees, the limited pasturage, and the fact that nature is for the most part the breeder, with the three last mentioned races the struggle for life is intense. Color and beauty are of no account except as they aid their possessor. And so there is the most severe pruning. Those alone survive which can gather sufficient stores despite the drouth, and their numerous competitors.

Mr. Benton, who has spent the past summer at Larnaca, Cyprus, writes me that the drouth upon the island has been very severe, and that unless he had fed he would have lost all his bees. Such hard conditions must of necessity breed a race of bees which we cannot expect to rival.

Our American breeders will be very slow to adopt the severe pruning which nature practices with relentless hand in Italy, Cyprus and Syria. Our breeders look to some fancied superiority, like white fuzz on orange shield, banded drones, golden color, etc. And we can hardly hope, because of such prejudice, even were there wisdom sufficient, for that hard cold selection, which knows only genuine superiority, that nature always adopts.

I will, therefore, close by saying that the most progressive apiculture demands the frequent importation of these rigidly bred queens from Italy, Cyprus and Syria.

Lansing, Mich.

[We are among those who have observed "that some bees are far more valuable than others;" at the recent meeting of the National Convention, in Cincinnati, were many old and intelligent bee-keepers who have observed it—some of whom have kept bees for more than a score of years for a livelihood; others who keep bees as a combination of recreation and profit; some who keep bees as breeders and to supply a public demand; while not a few keep them as a source of study and recreation alone. With all these persons, close observation, continual experiment, and discriminating judgment are proverbial. With the use of the movable frame contributed by the great Langstroth, and a close study of the scientific Manual by Prof. Cook, bee-keepers are advancing in their views as rapidly as science and research develops new truths. The unanimous verdict of the Cincinnati Convention, in favor of the light strains of American-Italians, was undoubtedly based upon discriminating observations.

We wish it distinctly understood, that while we believe the intelligent and discriminating bee-keepers of America have succeeded in breeding a strain or strains of bees equal, if not superior, to any to be found in Italy, we would not discourage any from importing, if an improvement is possible. But an indiscriminate importation, as is too much the case of late, may be the means of flooding the country with a lot of second rate queens, far inferior, but at a higher price than much of our really excellent improved stock. We do not doubt there are many fine queens bred in Italy, but we *do* believe none are better than some of our best. If some queens and some bees in Italy are light and others "black as those of the German race," is it not true that the same shades of disposition prevail? and has a purchaser any assurance that he is obtaining the better variety? We do not believe, with our careful and discriminating breeders, it is possible for our superior bees to deteriorate, but, rather, that we are on the higher road to perfection, and that strains may be developed to meet the most exacting exigencies.

Suppose, however, it should prove true, as now believed by many observing apiarists, that the bee of Italy is itself a cross, is it not quite possible, nay probable, that the years of careful and observant breeding in this country and portions of Europe, have more fully developed some of the better qualities possessed by one branch of the cross, while it has obliterated the undesirable characteristics of the other?

Undoubtedly "our American breeders will be very slow to adopt the severe pruning which nature practices" with bees, as with everything else. This is only another expression for "nature's survival of the fittest." According to Mr. Benton, nature last season would have pruned out all his bees had not human skill provided for their survival.

It is a question whether nature, in the course of her pruning processes, does not frequently perpetuate an undesirable feature at the expense of more desirable instincts and powers: for instance, in developing the physical formation of bees, during a long period of time, to withstand the hot, scorching winds and frequent drouths of Cyprus and Syria, may it not have been at the expense of physical developments to enable them to withstand our northern climate, unless crossed with a hardy race, or acclimated by careful breeding through several generations? Or, may not nature, in the course of fitting bees to survive months of starving drouth, deprive them of that ambitious instinct to store large amounts of honey during a long and bountiful season of bloom? With the Italian bees, our honest breeders have perpetuated the best; many breed for certain charteristics—some to develop longer tongues, others to encourage amiability, a few want an increase in size, and the specialist would have bees that can gather honey all summer long; but the progressive bee-keeper of to-day wants all these qualities combined in the same bee, and what with our *improved* Italians, and perhaps a few features borrowed from the best of the Cyprian and Syrian bees, *he will realize the fruition of his wishes.*

The wise bee-keeper will buy the best home-bred, or breed from what *he* finds best; do not depend upon "nature's severe pruning," for her hand is indeed relentless. The dogma of "the survival of the fittest," is antagonistic to civilization and progress, is fatal to education and science, and calculated to encourage slothfulness and barbarism. No successful stock-breeder, farmer, poultry-raiser or bee-keeper will be satisfied with what is left after nature has completed her pruning.

At the last session of the National Convention, M. Hayes, Esq., offered the following resolutions, which were unanimously adopted:

Resolved, That the importation of pure Italian, Cyprian and Holy Land bees into North America, ought to be encouraged for the *sole* purpose of adding new and different strains of blood to that we already have.

2. That the strain of Italian blood we now have has reached a higher standard of excellence than is to be found in the native home of the Italian.

3. That queens reared from pure selected home-bred Italian mothers, should command at least as high a market value as those bred from imported mothers, where pure Italian stock is the sole object desired.

The resolutions met our hearty approbation at that time, and we have had no occasion to change our opinion since.—Ed.]

For the American Bee Journal.

Stingless Bees of South America.

JOHN F. DIPMAN.

I am highly pleased with the new Weekly Bee Journal and think every bee-keeper should try to give the Weekly a good support. Allow me to congratulate you for the enterprise you have displayed.

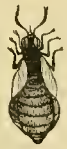
On page 5 of the last Journal is an article on stingless bees of South America. Are the bees of South and Central America alike? Are our bees inferior or superior to the stingless bee of Central America? If not, it will not pay Mr. Hawley to import them, he will only lose his money. Mr. A. O. Moore, of New York, imported stingless bees from Central America, about 1860, and had them on exhibition in the office of the *American Agriculturist* in September, 1860; but they were found dead after the first cold weather.

In the *American Agriculturist*, Mr. Moore gives a full description with several illustrations of the bees and their combs. He says, that they cannot be kept with other bees on account of having no sting for self-defence. Mr. Moore was about 3 months in Central America and paid particular attention to these bees.

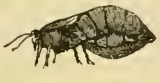
Fremont, Ohio.

[In reference to this scheme the *American Agriculturist* says:

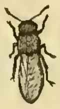
"It is proposed by W. S. Hawley to introduce the stingless bees of South America as soon as a sufficient number of subscribers warrant the enterprise. The circular states that an article in an Albany paper in September last 'was the first intimation the Bee Fraternity of the United States had that there existed anywhere on the habitable globe a species of the honey bee that has no *stingers*.' It was because the 'Bee Fraternity' did not read the *American Agriculturist*, as we, in 1861, not only figured and described the stingless bees, but had a colony of the bees themselves on exhibition at our office when it was in Water street. Figures 1 and 2 represent different positions of the queen bee of the *Jicote* variety of the stingless bees. Figure 3 is one of the workers."



1—*Queen Bee.*



2—*Side View.*



3—*Worker.*

Mr. Hawley was unfortunate in many expressions in his circular. *Gleanings* for January imagines that he stated that the Rev. W. F. Clarke was killed by a bee-sting on the back of his tongue, and having written to Mr. Clarke to know whether he was dead or not, received a long reply stating that he was alive and well, and that he "hoped to do a little more good in the world before leaving it." This was the result of Mr. Hawley's awkward manner of expressing himself. He did not intend to say Mr. Clarke was dead, but a man who, *later*, accidentally got a bee in his mouth, which stung him, etc.

Then, again, Mr. King, in the *Bee-Keepers' Magazine*, complains of Mr. Hawley's bungling way of expressing himself, carrying the idea that Mr. King endorsed his project, which Mr. K. emphatically denies.

Now comes another circular from Mr. Hawley, stating that he will stay in Brazil two or three years, in the employ of the Brazilian government, "to introduce the mysteries of American bee-keeping" into that country.—Ed.]

From the Prairie Farmer.

Bee-Keeping as Woman's Work.

MRS. L. HARRISON.

Some women love to be dependent and to be compared to clinging vines, which are lifted into air and sunshine by sturdy oaks; there are others again who scorn dependency, and can stand erect guided by light from heaven and true womanhood. This kind of woman loves to be a producer, and in olden time found abundant range in manufacturing cloth. Solomon says: "she seeketh wool and flax, and worketh willingly with her hands; she layeth her hands to the spindle, and her hands hold the distaff." The use of steam has almost entirely dispensed with spinning wheels and looms from the household, so self-reliant women are prying into every nook to discover some other avenue where she can develope her mind and energy.

Scientific bee-culture is an open field to all women of energy and brains; here is a free range for discovery, improvement, and production. Why! we do not even have to pay one cent to be admitted to the membership of bee conventions, being regarded as superior beings or as ornaments of enough value to pay all admission fees, badges, etc. If we compete with the other sex in making pants or in teaching, we will be obliged to accept less pay than they do; but who ever heard of a pound of honey bringing less because it was produced by a woman? No "vines" had better embark in the business, or women of means, who know nothing practically of bee-culture, but purpose to hire the bees cared for by others, and expect to reap a rich reward from their investment; but any woman who can make good bread, pick a goose, milk a cow, or harness a horse, can make bee-keeping a success.

We know a woman who is going out to wash by the day in order to earn money to purchase a colony of bees. We opine that she will make bee-keeping a success as she is bright, smart and self-reliant. She has the misfortune to have a paralytic husband, and thus exerts herself to make a comfortable living, and educate a feeble son. All honor to her and other brave women who never shirk the burdens of life.

There is nothing connected with bee-keeping but what a woman can do as well, as the other sex. She should not be expected to manufacture her hives any more than a house-keeper to build her own house; but as hives, frames, and surplus boxes can be purchased cheaply in the flat, we know no reason why she cannot learn to nail them together. We should have tried our hand at it long ago, if we had not a partner who is an expert at it.

No one should engage in the business expecting to find a "Bonanza," but any woman may reasonably expect fair returns for the money and time expended. One or two colonies is sufficient to commence with, if your knowledge increases in like ratio with your bees, all will be smooth sailing and a prosperous voyage.

Peoria, Ill.

For the American Bee Journal.

Spring Feeding—Spring Dwindling.

WM. S. BARCLAY.

These two subjects, although apparently so different, are so nearly related that we consider it not at all improper to treat of them together, some of our fraternity having gone so far as to insist that the former is even the cause of, or productive of the latter, assigning as a reason that feeding causes an undue flight of the bees in such seasons, as in many cases they are unable to return to their hives, and many being prevented from so doing, produce a decline in the population of the colony, and thus they account for spring dwindling. However we may dissent from this view of the case, it occurs to us that this unseasonable flight, as it is termed, may be the means of saving us from that other disaster so much dreaded—dysentery—which I cannot look upon as a disease, but, as Mr. Doolittle well disposes of the subject, the unnatural condition of the organs of the bee consequent upon long confinement to the hive.

As to spring feeding, opinions do not differ so much on the subject itself, as to its time of commencing; how it shall be conducted; for what purpose it shall be resorted to; how long it shall continue, etc. When we have concluded to feed, it will be our first purpose to see that the hive and the bees are in proper condition for giving the feed. Our practice in the past has been like the following: We make our hive perfectly comfortable for the bees to go to any part of it when necessary, by the use of proper packing, suitable division boards, etc. We place the bees in the west side of the hive (hive standing to face the south), first having placed a chaff division board next the side-wall of the hive. As to this division board, it may not be amiss to say, that it is made by taking an empty frame and tacking thick pasteboard or paper on one side, lay it flat and fill tightly with wheat chaff, then tack on the other side of the frame heavy woolen cloth, such as old comforts or blankets; the frame is then ready for use the same as any other division board. We leave only enough combs for the bees to cover entirely, then insert along side these combs another chaff frame; on the opposite side of this chaff frame we place our frame containing the honey we wish to feed, or a feeder of suitable kind containing either honey or sugar syrup, and an empty comb, the cells of which have been filled with water. We may then insert another chaff frame, and if space still remains in the hive, it may be filled with wheat chaff. Let me here say, that I consider clean wheat chaff as a proper absorbent of moisture, superior to any packing I have ever used.

It may be asked why, at the time of feeding, we have given a comb containing water. In reply we say, to prevent the flight of our bees in search of water which they consume very eagerly when being fed. Water may also be given in various other ways, as, for instance, small sponges may be filled and placed over the combs containing the bees and brood; cotton rags may be saturated with water and hung in the same manner. A colony thus treated will be found to adhere more closely to their hives when being fed than they will do in the absence of water.

When the feeding is to be conducted as proposed, after the food and water have been properly introduced, the next important matter to receive attention is the careful covering of the combs. For this purpose we use a soft woolen quilt or blanket to securely cover the combs, and then place on top of this a box or frame 4 inches deep, filled with wheat chaff, observing carefully that no space is left open for the passage of a current of air through the brood combs. But little fear need be felt of making the bees too warm. Should such be the case, a portion of the top covering can easily be removed. After the hive has been placed in the condition described, all that remains for us to do is to be watchful that at no time the feed or water supply shall be permitted to fall short, and when the condition of the colony and the state of the weather will permit it, place an empty comb for eggs between two of the brood combs, observing carefully that we have enough bees to entirely cover all the combs. The importance of keeping up the feeding until nature supplies ample stores for the bees, will be apparent to any one who will go to the mouth of the hive on a cold morning, and there find the young larvæ which have been carried out of the hive during the night. This is also an additional reason why we insist that no more combs be given than the bees can protect, in which case loss of brood from being chilled will not take place.

When, unfortunately, in some cases our bees have suffered from dysentery, we have found the best remedy we could apply was a supply of water inside the hive; especially did we find this was the case when the bees had free access to artificial pollen, such as rye meal or other suitable substance. It is better in all cases where the colony has been severely affected with this trouble, to remove the soiled combs to a populous colony, and in their place furnish clean combs, and to do this even at a loss of brood combs of the afflicted colony. No danger need be apprehended in giving those combs to a strong colony, as they will soon clean them off without being at all affected. This is another reason why we cannot assent that dysentery is a disease.

Beaver, Pa., Dec. 21, 1880.

☞ The Rock River Valley Bee-Keepers' Association will hold their annual meeting the second Tuesday in February, 1881. The weather was such that our Secretary was not at our last meeting and our Secretary *pro tem* having failed to send in his report, I send the above notice. A. Rice, *Pres.*

☞ The Nebraska Bee-Keepers' Association will hold their Annual Convention, on the 10th and 11th of February, 1881, at Plattsmouth, Cass Co., Neb. Western Iowa bee-keepers are cordially invited to attend.

Hiram Craig, *Pres.*

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR,

CHICAGO, ILL., JAN. 12, 1881.

How to Prepare Bees for Shipping.

When is the best time to ship bees from here to Dakota, and please give directions for preparing them for shipment that far? J. B. ELLISON.

[The best time for shipping that distance would be April, or quite early in May, before the combs are too heavy with brood; but with proper care in preparing them and ordinary usage in handling, they may be shipped at any time with comparative safety, except in quite cold weather.

The first work is to go through your hives and extract about all the uncapped honey, as the least daubing will prove fatal to the bees; then procure a block one inch square, and as long as the hive is wide, in this cut notches and tack in the bottom of the hive, in which to place the frames to keep them steady; now select the new combs and those heavy with brood or sealed honey, secure them well in the frames with strip-binders, and place in the hive; tack the ends of the frames firmly to the rabbets on which they rest; dip the blanket in clean water, lightly wring, fold about 6 thicknesses, and lay on the front ends of the frames. If your hive has no portico, leave off the cover, and instead use wire cloth, nailing on top of that three 1-inch strips, 2 inches wide—1 across the centre, the others across each end—to insure ventilation when piled on each other. Now tack wire cloth over the entrance, and your bees are ready for shipment to Australia if needs be.

If the hive has a portico, prepare in the same manner as above, except to bore a 1½ inch hole in each side of the brood chamber, and also in the cover, which will be used in place of the wire cloth over the frames; the holes to be covered inside and outside with wire-cloth, to admit of ventilation. Leave the entrance open full size, but cover the entire portico securely with wire-cloth, leaving free access to it from the interior of the hive.

Prepared in this manner, we have shipped full colonies, at all seasons from May 1st till Aug. 10th, to Connecticut, Canada, Pennsylvania, Virginia, South Carolina, Georgia, and many other States, North and South, with perfect success. In August last Mr. Alfred H. Newman shipped a colony, prepared in this manner, to New Zealand, via San Francisco. The trip occupied *six weeks* by railroad and ocean steamer. Return advices, after a lapse of three months, stated they arrived safely and in good condition, but many of the bees were dead, which were probably old bees. He has an order from New South Wales for two colonies in the spring, which he informs us will be prepared in the same manner.—ED.]

☞ Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

Compulsory Honesty.

We are frequently in receipt of letters asking for the draft or form of a general law, applicable to and prohibitory of, the almost universal adulterative poisoning now so largely practiced. The last number of the *American Grocer* gives the copy of a bill recently prepared under the auspices of the National Board of Trade, embracing the suggestions of the ablest of the competitive essays received by the Messrs. Thurber, in response to their prizes of $1,000 offered for the best on the subject. The following is a copy of the bill as prepared by the committee:

A BILL to Prevent the Adulteration of Food or Drugs.

Be it enacted, &c., That no person or corporation shall knowingly transport, or cause to be transported, from the State, district, or territory, in which he resides or does business into any other State or territory, or from any foreign country, or other State or territory, into the State or territory in which he resides or does business, for sale or barter, or to be offered for sale or barter, any article of food or drugs adulterated within the meaning of this act, and any person violating the above provision shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not more than fifty dollars for each offense.

SEC. 2.—That no person shall, within the District of Columbia or in any of the territories, or in any fort, arsenal, dock-yard, or reservation, or other place under the jurisdiction of the United States, manufacture, offer for sale, or sell any article of food or drugs which is adulterated within the meaning of this act, and any person violating this provision shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding fifty dollars.

SEC. 3.—If, on examination of any article of food or drugs imported from any foreign country, it is found to be adulterated within the meaning of this act, a return to that effect shall be made upon the invoice, and articles so noted shall not be permitted to pass the custom-house or be delivered to the consignees, unless on re-examination, as provided for in this act, it shall be found that the said articles are not adulterated.

SEC. 4.—The owner or consignee shall have the privilege of calling at his own expense for a re-examination, and on depositing with the Collector of Customs such sum as he may deem sufficient to defray such expenses it shall be the duty of the Collector of Customs to procure a certificate, under oath from a public analyst, of a careful analysis of the articles in question; and in case the report by certificate of the analyst shall declare the report of the officer who examined the goods to be erroneous and the said articles to be unadulterated, the said articles shall be returned to the owner or consignee, and passed without reservation on payment of the duties, if any. But in case the officer's return shall be sustained by the analyst the said articles shall remain in charge of the Collecter of Customs, to be disposed of in accordance with regulations to be prepared by the National Board of Health and approved by the Secretary of the Treasury: PROVIDED, That the owner or consignee, on payment of charges of storage and other expenses necessarily incurred by the United States, and on giving bond, with sureties satisfactory to the Collector, agreeing to remove said articles from the United States, shall have the privilege of re-exporting them at any time within the period of six months after the date of the report of the inspector or public analyst.

SEC. 5.—In order to carry into effect the provisions of this act, the Secretary of the Treasury is hereby authorized to appoint from names submitted to him for that purpose by the National Board of Health one or more suitable qualified persons as special inspectors and as public analysts for adulterated food and drugs at such ports of entry as the Secretary of the Treasury may deem expedient, and it shall be the duty of the National Board of Health to prepare instructions governing the work of such inspectors and analysts, which, when approved by the Secretary of the Treasury, shall govern their action, and that of collectors of customs, in preventing importation from foreign countries of food or drugs adulterated within the meaning of this act.

SEC. 6.—The National Board of Health shall make, or cause to be made, examination of specimens of food and drugs collected under its direction in various parts of the country, and shall publish in its weekly bulletin the results of such analyses. If it shall appear from such examination that any of the provisions of this act have been violated, the Secretary of the Board shall at once report the facts to the proper United States district attorney, with a copy of the results of the analyses duly authenticated by the analyst under oath.

SEC. 7.—It shall be the duty of every district attorney to whom the Secretary of the National Board of Health or any collector of customs shall report any violation of this act to cause proper proceedings to be commenced and prosecuted without delay for the fines and penalties in such case provided, unless, upon inquiry and examination, he shall decide that such proceedings cannot probably be sustained, in which case he shall report the facts to the National Board of Health. And for the expenses incurred and services rendered in all such cases the district attorney shall receive and be paid from the Treasury such sum as the Secretary of the Treasury shall deem just and reasonable, upon the certificate of the judge before whom such cases are tried or disposed.

SEC. 8.—An article shall be deemed to be adulterated within the meaning of this Act:

A.—In the case of drugs.

1. If, when sold under or by a name recognized in the United States Pharmacopœia, it differs from the standard of strength, quality or purity laid down therein.
2. If, when sold under or by a name not recognized in the United States Pharmacopœia, but which is found in some other pharmacopœia or other standard work on Materia Medica, it differs materially from the standard of strength, quality or purity laid down in such work.
3. If its strength or purity fall below the professed standard under which it is sold.

B.—In the case of food or drink.

1. If any substance or substances has or have been mixed with it so as to reduce or lower or injuriously affect its quality or strength.
2. If any inferior or cheaper substance or substances have been substituted wholly or in part for the article.
3. If any valuable constituent of the article has been wholly or in part abstracted.
4. If it be an imitation of or be sold under the name of another article.
5. If it consists wholly or in part of a diseased or decomposed, or putrid or rotten, animal or vegetable substance whether manufactured or not, or in the case of milk, if it is the produce of a diseased animal.
6. If it be colored or coated, or polished or powdered, whereby damage is concealed, or it is made to appear better than it really is, or of greater value.
7. If it contain any added poisonous ingredient, or any ingredient which may render such article injurious to the health of a person consuming it: PROVIDED, That the National Board of Health may, with the approval of the Secretary of the Treasury, from time to time declare certain articles or preparations to be exempt from the provisions of this act: AND PROVIDED FURTHER, That the provisions of this act shall not apply to mixtures or compounds RECOGNIZED as ordinary articles of food, provided that the same are not injurious to health, and that the articles are distinctly labelled as a mixture, stating the components of the mixture.

SEC. 9.—It shall be the duty of the National Board of Health to prepare and publish from time to time lists of the articles, mixtures or compounds declared to be exempt from the provisions of this act in accordance with the preceding section. The National Board of Health shall also from time to time fix the limits of variability permissable in any article or compound.

SEC. 10.—The term "food" as used in this act shall include every article used for food or drink by man. The term "drug" as used in this act shall include all medicines for internal or external use.

SEC. 11.—All the regulations and declarations of the National Board of Health, made under this act from time to time and promulgated, shall be printed in the Statutes-at-Large.

SEC. 12.—This act shall take effect ninety days after it shall have become a law.

We would suggest amending § 1, 2d line, by inserting "manufacture, sell, or cause to be manufactnred, sold, or" between the words corporation shall. The penalty for violations should be not less than $50 nor more than $100, and confiscation—one-half the fine to go to the informer, when collected. The sections should all be modified so as to simplify prosecutions and render more certain their enforcement. We are aware some doubts exist as to the propriety or power of Congress to meddle in the matter; but properly amend the sections of this bill to prevent the manufacture, sale or transportation of compounds intended to deceive consumers, then view them collectively in the light of a sanitary measure, and all scruples will at once vanish. The specifications appended as a part of § 8 meet with our full approval.

A bill should be, in fact *will be*, introduced in Congress at an early day to reform the outrageous abuses now practiced. Meantime, continue to agitate. Bee-keepers' societies, every society or person who is a producer, every mechanic or person who is a consumer, every merchant or grocer who is a buyer or seller—in fact, *every honest person*—is interested, and should do all in his power to consummate the much needed reform.

Plant Sweet Clover.

The following extract is from a recent number of the *Indiana Farmer*, and it is gratifying that their experience has been so identical with ours, as given on page 361, August, 1880, number of BEE JOURNAL. We believe all bee-keepers will fully concur with everything we have heretofore written in favor of planting for honey pasturage, after giving the matter a fair and impartial trial. We suggest that it will pay to plant sweet clover in the East where land is valuable, for the reason that it is a perfectly hardy plant, requiring no great care in the preparation of ground, no special adaptability of soil, no scientific or expensive culture, nor an especially favorable season; harrow in the seed, on a waste spot, wet or dry, clay, sand or gravel, hillside or gully, anywhere, and it will take care of itself. In the West, where land is cheap, it will pay to plant it, for it takes no time from other crops. It will pay to plant it in the North, where the winters are long spring bloom late, and frost early in fall, because it gives a continuous bloom in summer, after white clover and basswood have failed in their nectar secretion; and it will pay to plant it in the South, where the summers are long and the drouths severe, for winter frosts and frequent rains are not necessary to its development. We doubt if there is a locality in America overstocked with bees, that has not in its immediate vicinity enough of non-productive soil to give every bee-keeper a remunerative yield of honey, if properly utilized in the production of honey-yielding plants. To be sure, a *little* expenditure of time and money would be necessary; but not nearly so much as is expended every year in feeding to prevent starving. More bees die each year from want of honey pasturage, than would doubly pay for the time and expense of providing it. Moreover, the consequent increase of stock would repay all expense incurred. At 25 to 30 cents per pound for the seed, any bee-keeper can afford to put in at least one pound for every colony. Try it, and try other plants; try everything.

Some five years ago we received a package of sweet clover (*Melilotus alba*) seed from Mr. C. F. Muth, Cincinnati. We did not believe at that time that planting for honey would pay. Still we concluded to give the matter a fair test. We scattered seed in several different places, selecting as many different kinds of soil as possible. The sequel proved that there is no soil so poor in which melilot will not grow, and it will thrive under almost any or all circumstances, and in all kinds of weather. We have watched this plant closely for the past three years and we are satisfied that it is one of the very best that we can plant for honey alone. Blooming as it does from the first of July to September, makes it of still greater value, filling the gap from basswood to fall flowers. The most disagreeable fact is hat it is fit for nothing else. Cattle will sometimes browse on it early in the spring, otherwise it is not touched by stock. Last season, although the bees could find nothing else on which to work, the melilot kept them busy, enabling us to continue queen-rearing, and to build up nuclei without cessation, until late in the season. It may be sown at any time; it is biennial; does not bloom but very little the first year, and at the close of the second year dies out root and branch. Some objections are raised, claiming that if it becomes fairly established it is a pernicious weed; but, as it dies the second year, root and branch, it is easily gotten rid of if not allowed to go to seed. As an ornament to roadsides it is far superior to dog-fennel or rag-weed. To those who own rough, broken, or waste land, we can well say it will pay you to plant melilot. It yields a delicious honey, equal to, if not superior to white clover, especially as regards the flavor. Four pounds of seed will sow an entire acre, although we would advise sowing it only in waste places, along the roadsides, along creeks, brooks, on hillsides, along railroads, etc.

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Congratulations to the Weekly.

While thousands have approved and praised the Weekly, and congratulated us upon its appearance, we are surprised that there are no more who preferred the old size and shape—those who have spoken of this preference being only about one to a thousand who have signified their approval. The enthusiasm over the birth of the Weekly exceeds our most sanguine expectatations, and it is exceedingly gratifying to know that our efforts to make an acceptable paper are so universally appreciated. To all we return thanks for their generous encouragement. The Weekly starts with very flattering prospects, and is a success from the very first. From the many letters of commendation the attention of the reader is directed to the following:

The initial number of the Weekly Bee Journal has made its appearance. We expected a good paper, and the first number indicates that we shall not be disappointed. F. N. WILDER.

I am much pleased with the first number of the Weekly Bee Journal. I have long wished for a weekly bee paper. GEO. T. WHEELER.

The Weekly has arrived and I like it. As of old it is a model publication. Now get up an Emerson Binder suitable for it and we will not only wish the editor a Happy New Year—but the Weekly Bee Journal a successful year. JAMES HEDDON.

[We have had a large lot of Binders made especially for the Bee Journal, and will sell them at wholesale rates just to accommodate our patrons. They retail for a dollar, but we will send them to any address postpaid for 85 cents.—ED.]

The Weekly is received. I like it. All will be pleased to know what occurs, as events transpire, rather than thirty days after date. T. F. BINGHAM.

I liked the Monthly; but I like the Weekly better. GEO. D. STAATS.

I very much appreciate your change of the Monthly to the Weekly Bee Journal. H. CRIPE.

I like the idea of the Weekly Bee Journal. I want and must have every number. I cannot afford to miss one of them. W. T. STEWART.

I have received the first number of the Weekly Bee Journal and am much pleased with it. D. L. WHITNEY.

The Weekly Bee Journal is the one thing needed to complete my happiness as a bee-keeper. I cannot do without it, and shall not as long as it is published. Success to the Weekly Bee Journal. H. JONES.

I am very thankful that the Bee Journal is to issue every week; formerly it seemed very long to wait a month for it. So it is with pleasure that I send my subscription. My 17 colonies of bees are in my cellar packed in straw and are in good condition. CHARLIE H. BRADISH.

I am pleased with the appearance of the Weekly Bee Journal. I have the pleasure to hand you the difference between my subscription for the Monthly and the Weekly for the balance of my present time. H. H. LITTELL.

Mr. G. H. B. Hooper, editor of the *Dominion Apiarian Bazaar*, writes: "The Bee Journal is well worth all it costs, and should be in the hands of every bee-keeper in America, as I hope it will be."

I am very glad we are to have a Weekly Bee Journal. I think it will be a great benefit to bee-keepers in general. A. D. STOCKING.

I welcome the Weekly Bee Journal, and wish it and its editor much success. WM. CHRIST.

I have received the first copy of the Weekly Bee Journal. It is just the thing, and is what I have been for years wishing for. I hope it will be a success. J. H. MURDOCK.

I like the Weekly Bee Journal and think it will a benefit to bee-keepers and hope it will pay the publisher well. I wish it success. D. LOVEJOY.

The publisher of the American Bee Journal, heretofore published Monthly, now issues that well-known and favorite periodical Weekly. It is a beautifully printed 8-page, 4-column paper, and is sent to subscribers at $2.00 a year.—*Fruit Grower.*

I am much pleased at the prospect of obtaining weekly news on the subject of bee-culture. B. E. MILES.

The Weekly Bee Journal has put in its appearance and I am highly pleased with it. To think we are to see it once a week makes smiling faces at our house. I am improving very slowly from my long sickness and hope soon to be able to send you a short article. G. M. DOOLITTLE.

The Weekly Bee Journal is received. I like it very much, and must have every number for 1881. SAMUEL D. RIEGEL.

I learn enough from the Bee Journal to pay the subscription price four times over. I have now 40 colonies in good condition on the summer stands, but sheltered. Bees did not swarm much during the past season—though they increased from 25 to 40, and gave me 600 lbs. of surplus honey. I wish the Weekly every success. G. T. SMITH.

You have made a long stride in the furtherance of the science and art of bee-culture by issuing a Weekly Bee Journal. I congratulate you and hope it will be as great a benefit to its publisher financially as it is to the bee-keeping fraternity generally. R. CORBETT.

It seems like parting with a friend to give up the familiar face of the old Monthly Bee Journal, that has made me regular visits for so many years; yet I know that this progressive age demands a journal that will be more frequent in its visit. LEE EMERICK.

I want the Weekly for 1881. I am thankful for which I have learned from the Bee Journal. In fact I owe about all I know about bee-keeping to its teachings and wish it success. I have 65 colonies in Langstroth hives in the cellar. JOHN MEADOR.

Place me on the list for the Weekly Bee Journal for 1881. I know it will be good. You have "hit the nail squarely on the head" that should have been driven long ago, in giving us a Weekly Bee Journal. I wish it prosperity and a host of subscribers. JOHN W. STURWOLD.

The Bee Journal comes in its new garb; it has greatly assisted me through the trials of the past. May its visits in the future bring good news of increasing prosperity for us bee-keepers. R. H. WEIR.

I hope the Bee Journal will be an abundant success. I have learned much from it in the past, and confidently expect still more the coming year. Give us all the light and knowledge at your command. B. S. MILES.

I have been greatly benefitted by the Bee Journal in the past, and expect much profit from it in the future. WM. BEARD.

I am well pleased with the prospect of having the Bee Journal Weekly, and wish it abundant success. JOHN BAXTER.

I like the appearance of the Weekly very much, and think it will be much more satisfactory than a Monthly. I send you seven subscribers for it, and we all wish it and you success. O. J. HETHERINOTON.

I received the first number of the Weekly Bee Journal and am highly pleased with the change from Monthly to Weekly. With me it is one of the indispensables. I have 17 colonies packed with straw on the summer stands with quilt and chaff cushion over the frames. I have had one colony destroyed by mice, the combs was not much disturbed but the bees were eaten up except the head, wings and sting end. I have now close the entrances of all my hives with wire-cloth. C. J. CHURCH.

The Weekly Bee Journal is received and I am well pleased it. I should feel lonesome without the Journal, and wish you every success. HENRY S. LEE.

I am very glad to see the Bee Journal in its new form. This step indicates the progress of apiculture, with which the Journal is keeping abreast. A. B. WEED.

I like the change to the Weekly very much. Success to you. E. R. WRIGHT.

Send me the Weekly. I wish you great success with it. I am quite sure it will be a success financially. S. C. DODOE.

I have received the first number of the Weekly Bee Journal and like it first-rate. GEO. DRURY.

I am pleased with your new departure in starting a Weekly edition of the Journal. I have not been a reader of the Journal for the past year but will now renew my acquaintance with an old friend whose pages will greet me every week. J. H. MARTIN.

I am very much pleased with the Weekly Bee Journal, and would not think of doing without it, and I will find time after a while to write some more articles for it. M. MAHIN, D. D.

There was only one thing lacking in the American Bee Journal and now even *that* cannot be said of it, for we are to have our beloved Bee Journal *four* times where before we had it only *once*. It is a great advance in apiculture when there is a demand for a good Bee Journal once a week. The weather has been very cold for the past week, thermometer 10° to 25° below. It will go hard with bees that are not protected. HENRY G. BURNET.

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☞ We have to ask the indulgence of our correspondents. Notwithstanding we have increased the capacity of the BEE JOURNAL to a Weekly, still there is such a quantity of matter sent in that we can only give a tithe part of it this week—but we will give all a chance as fast as possible. The enthusiasm with which the Weekly is greeted, exceeds our most sanguine expectations.

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☞ Those who have subscribed for the Monthly or Semi-monthly, and may want to change for the Weekly, can do so at any time by paying the difference.

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☞ We are happy to state that Mr. Doolittle is slowly recovering his health. His many friends will be glad to hear it.

☞ Please examine the date after your name on the wrapper label of this JOURNAL and see that proper credit is given. Such is often a sufficient receipt, now that the JOURNAL comes weekly. In the great rush of the past week or two, some mistake may have occurred which we shall be most happy to correct, if our attention is called to it.

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☞ Our stock of No. 1 having been exhausted—we have not been able to send it to many hundreds of names sent in for that purpose. We send this No. in its stead.

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☞ The Indiana State Bee-Keepers' Association will hold its annual Convention in Indianapolis, January 13th and 14th. The Convention will be held in the State Agricultural rooms, corner Tennessee and Market Streets. Reduced rates have been secured at several first-class hotels. Many interesting papers will be read on the different subjects pertaining to the science of apiculture. Samples of the latest improved implements used in connection with modern bee-culture will be on exhibition.

FRANK L. DOUGHERTY, *Sec.*

AMONG OUR EXCHANGES.

GLEANINGS.

☞ Novice reports his lunch room a decided success. It is supplied with all that heart can wish for, including luscious Florida oranges.

☞ Novice gives the following very kind notice of the Weekly:

> For the first time since the world began, we are to have a Weekly Bee Journal, and I presume it is in the hands of many of you by the time this reaches you. The first number makes a very creditable appearance, and as it will be quite a task for friend Newman to get up such a one every week, shall we not turn in and give him a lift, in the way of subscriptions? If I am correct, a sample copy will be mailed on application.—*Gleanings in Bee Culture.*

Imported Queens.—Mr. G. M. Doolittle, is reviewing Novice's A B C book, and on this subject says: "I have had three daughters of imported queens from as many breeders, and none of them compared with the stock I had taken pains to breed for honey. With the majority of apiarists, probably, your remarks are correct; but we have a few breeders whose queens are far ahead of a promiscuous importation from Italy—at least, such is my opinion. Five hundred dollars would not hire me to breed all my queens from an imported mother, and let my present stock go down."

Fire Weed is reported by E. Tarr to be the greatest honey-producer down in Maine. It grows from 4 to 7 feet high, and commences to bloom about Aug. 1. It give white honey of fine flavor, and Mr. T. reports thousands of acres there, and the few bees in that locality, therein revel with delight.

Perforated Separators.—J. C. Carpenter has gotten up a hand machine for perforating separators. He says it will perforate tin or paper rapidly, and costs but $5.00. It makes holes three-eighths of an inch in diameter and three-eighths of an inch apart.

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BRITISH BEE JOURNAL.

J. S. Wood copies from the travels of Edward D. Clark, LL.D., the following items on Cyprus and Hymettus bees and honey:

In these little cottages we found very large establishments of bees, but all the honey thus made is demanded by the Governor; so that keeping these insects is only as a means of an additional tax. The manner, however, in which the honey is collected is so curious, and so worthy of imitation, that it merits a particular description. The contrivance is very simple, and was doubtless suggested by the more ancient custom still used in the Crimea, of harboring bees in cylinders made of the bark of trees. They build up a wall formed entirely of earthen cylinders, each about three feet in length, placed one above the other horizontally, and closed at their extremities with mortar. This wall is then covered with a shed, and upwards of one hundred colonies may thus be maintained within a very small compass.

From this Monastery (Saliani) it is practicable to ride the whole way to the summit of Hymettus, but we preferred walking, that we might the more leisurely examine every object, and collect the few plants in flower at this late season of the year. We saw partridges in great abundance, and bees in all parts of the mountain, not only at the monastery, where a regular apiary is kept, but also in such numbers dispersed and feeding about the higher parts of Hymettus, that the primeval breed may still exist among the numerous wild colonies which inhabit the hollow trees and clefts of the rocks.

Their favorite food, the wild Thyme (Thymus Serphyllum), in almost every variety, grows abundantly upon the mountain together with Salvia pomifera and Salvia verbascum, and to this circumstance may be owing the very heating quality of the honey of Hymettus.

The pawerful aromatic exhalation of these plants fills the air with a spicy odor; indeed, this scented atmosphere is very striking characteristic of Greece and of its islands, but it peculiarly distinguishes the mountains of Attica.

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BEE-KEEPERS' MAGAZINE.

Test of Adulteration.—Professor Hasbrouck gives the following test of purity for honey: "Honey is very different from commercial glucose. It is a mixture in very nearly equal parts of dextrose and lacoulose. The dextrose is the part that 'candies,' is the same kind of sugar as that which is found dried in raisins, and is about one-third as sweet as cane sugar. The lacloulose will not candy, and is sweeter than cane sugar. Glucose made from starch is a mixture generally of one part dextrose and three parts dextrine—a gummy substance used for stiffening calicoes, and for gumming the backs of postage stamps. Dextrine is never found in pure honey. Now the test of dextrine is the solution of sub acetate of lead, or Goulard's water, which can be found at any drug store. This precipitates the dextrine in any mixture as a thick white curd, which remains floating in the liquid. The same solution put into honey does not change its color. This simple test is very striking, and always reliable. The glucose formerly manufactured contained foreign matter gathered in the process of making, by which it could be easily detected; but the specimens I have seen recently contained so little of these that they could be demonstrated only by the practical chemist. The way on which we rely to distinguish honey from its adulterants is by the polariscope, with which we can tell the difference between honey and grape sugar, and cane sugar, and glucose, as plainly as one can distinguish gold and iron, by the unaided eye."

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JOURNAL OF HORTICULTURE.

Bees in Ireland.—It has been stated so often that 1879 was disastrous among bees that I need hardly endose it as regards Ireland. Rain and wind prevailed all the honey season here; but for three or four seasons it has been so unpropitious for honey gathering that nearly all the old apiarists have been discouraged. I fed the bees abundantly in autumn, winter and spring, with syrup made from 4 lbs. of loaf sugar, to a quart of water, one spoonful of vinegar, and half a glass of best whisky. This mixture I gave them in a dishfuls of 2 or 3 lbs. well covered with small pieces of sticks.

Conventions.

Tuscarawas and Muskingum, O.

The Tuscarawas and Muskingum Valley Bee-Keepers' Convention met at Newcomerstown, O., on Wednesday. Oct. 6, at 1 p.m. President L. B. Wolfe being absent, Vice President Rev. W. Ballentine, of Muskingum, was called to the chair. After reading and approving the minutes of the last meeting, the following questions proposed for discussion were taken up.

The cells in brood-combs by constant use become small, does this reduce the size of the bee? This question was opened by Mr. A. B. Thompson and followed by A. A. Fradenberg and Rev. W. Ballentine. After being ably discussed it was referred to A. A. Fradenberg for consideration at next meeting.

Do bees make honey? The opinion of the Convention was that honey was a natural secretion of the flowers, and that bees did not make honey but gathered it from the flowers.

What is the best method of wintering bees? A. B. Thompson's method of wintering was in chaff-packed hives on summer stands. Mr. J. A. Bucklew's method was to crowd the bees in the center of the hive by means of division boards, and then packing at each side of the bees with loose chaff, also filling the upper story with chaff. The Convention after considering the different methods of wintering bees gave preference to wintering in chaff-packed hives on summer stands.

The By-Laws were read and six new members received. Adjourned till 9 a.m.

MORNING SESSION.

In the absence of the chairman *pro tem.*, Vice President A. A. Fradenberg occupied the chair:

Do you work for extracted or comb honey, and from which do you realize the best results?

This question was one of some importance, and was ably discussed. On account of a lack of a home market for extracted honey bee-keepers had almost entirely worked for comb honey as there was a ready sale for all that had been produced.

R. L. Shoemaker strongly favored extracted honey, advising bee-keepers to use the extractor, and to place it upon the market in neat and attractive shape, with a guaranty that it was pure, and, just the same as consumers had been getting in comb honey, only they would get it cheaper. The opinion of the Convention was that more honey could be taken with the extractor than in the comb, but for lack of a market and demand for extracted honey it paid best in the comb.

Can fertilization in confinement be made a success—if so, how? It was answered that it was not as yet a success, and may never be.

Introducing queens? A. A. Fradenberg practiced the Betsinger plan and was generally successful. Mr. Nicodemus used a wire-cloth cage, of his own make, and introduced by Novice's method. J. A. Bucklew removed the queen to be superseded and placed the new queen in a wire-cloth cage, between two of the brood combs for 48 hours; at the end of that time he removed one of the stoppers from the cage and in its place put a plug of comb honey and allowed the bees to liberate the queen themselves when all was quiet.

How shall we feed bees that lack winter stores—what and when to feed? It was answered that the time to feed was in August and September, and to use some one of the bee feeders now in use, or to take a glass fruit jar, fill it, tie a cloth over the mouth of the jar and invert it over the cluster of bees, and in that way a gallon of feed could be fed in a few hours. Feed in August and September in order that the bees may have time to cap it over before cold weather. For feed, use honey or best coffee A sugar made into syrup of about the consistency of honey.

Mr. A. A. Fradenberg by the aid of a hive favored the Convention with an explanation of D. A. Jones, a Canadian bee-keeper's method of working bees as explained by Mr. Jones, at the National Convention, at Cincinnati, O.

Cambridge, Gurnsey Co., Ohio, was chosen as the place for the next meeting. J. A. Bucklew, Clarks, O.; R. L. Shoemaker, Newcomerstown, O., and F. J. Wardell, of Uhrichsville, O., were chosen as a committee to arrange a programme.

On motion the Convention adjourned to meet at Cambridge, Ohio, on the first Wednesday in May, 1881.

A. B. Thompson exhibited Peet's combined shipping and introducing queen cages. J. A. Bucklew exhibited sample copies of the four leading bee papers of the United States. The Convention tendered their thanks to the citizens of Newcomerstown for the use of their hall.

A. A. FRADENBERG, *Pres. pro tem.*
J. A. BUCKLEW, *Sec.*

Michigan State Convention.

The Michigan State Convention of bee-keepers met at Lansing, on Dec. 8, 1880. As usual it was well attended and harmonious.

Imitation honey and sugar were condemned and a committee, consisting of the State Board of Health, was appointed to bring the subject of adulteration before the State Legislature at once.

A committee was also appointed to bring the question of foul brood before the Legislature with a view to prevent its spread and assist in its eradication. Foul-brood was reported to have existed around Battle Creek last summer, to some extent, but it is now believed to be eradicated, except in one small apiary, consisting of 6 colonies, in West Leroy. The owner refused to destroy it, even when Mr. Salisbury and others offered to give him (the owner) healthy colonies in place of his sick ones, without money and without price. It is this case of selfish disregard to the interests of others without exense or palliation that induced our Convention to bring the matter before the Legislature. We hope to have a law similar to Utah's on the foul brood matter, and if it works as well as our law relating to Yellows in peach trees in this State, which was brought forward by the Michigan Pomological Association, this action of our Association will be regarded as of great value to bee-keepers everywhere.

Parties receiving queens in cages were urged to put them in other cages known to be clean, before putting them in their hives, and to destroy the bees and boil the cages in which queens were received from other apiaries, as a means of avoiding the risk of obtaining foul brood in the purchase of queens from other apiaries.

Many congratulatory letters and essays were received and read, and votes of thanks were unanimously passed to the writers; among them were the following:

I wish to call the attention of the Michigan State Association to the importance of thoroughly organizing your State by counties, into bee-keepers' societies. There are many who will attend County Associations that will not attend the State or District Societies. The attendance at our meetings is mostly local and therefore the necessity of county organizations; not that I would do away with the State and District Associations, but build them up by spreading the knowledge of bee-culture among the farmers and that class of bee-keepers who are still ignorant of the inventions and discoveries in scientific apiculture. As all the schools of learning in various sciences have adopted titles to distinguish them from other professions, I suggest that you bring the matter before your Association for investigation, &c., of adopting a title for bee-keepers. May your light shine more and more, until ignorance and superstition will be vanished from our land and the light of scientific bee-culture shall be seen and appreciated by all the world. We are having very cold weather for this climate, the thermometer was down to zero in November. That is something new with us and I fear many colonies of bees will perish this winter. We winter on summer stands and with but little protection, and many of us had not put our bees in winter-quarters when the cold snap came upon us. I hope your Society will not fail to appoint delegates to the National Association. Permit me to ask your Society for its co-operation in making the National Association a power for good and that it may prosper and prove a blessing to the bee-keepers of not only North America, but the world.

N. P. ALLEN,
Pres. National Association.
Smith's Grove, Ky.

It is very difficult to write anything fresh and new upon the subject pertaining to apiculture, and I hesitate to begin; but I like the friendly way you brethren in the far north have of calling upon your southern friends to join you in your onward stride towards improvement in our pet science of apiculture. I was talking with a gentleman from your State yesterday, and he expressed his surprise at the thrift of our people, and the friendly reception tendered to any and all gentlemen from the north by the southern people. If any one of you have any fears, from political reasons, to come among us, tell him or them, one and all, that they are deluded, for our hospitality is as broad as our fields.

S. C. DODGE.
Chattanooga, Tenn., Nov. 23, 1880.

Several other letters were received by the secretary too late for the Convention, among which were one each from H. A. Burch and O. J. Hetherington.

The following essay, by Mrs. L. B. Baker, was read:

Cellar vs. Out-Door Wintering.

I assume that the three following conditions are essential to the best success in wintering bees, in-door or out, namely, perfect quiet, total darkness, and pure air of uniform temperature; and further, that these conditions should all be under control by the apiarist.

For the present purpose we will consider the most approved chaff hive on the one hand and the best arranged cellar on the other, in the attempt to prove that the indispensable conditions referred to may be more nearly approximated in the cellar than out of doors.

The first condition in the order is perfect quiet. That this cannot be so nearly attained out of doors seems evident when we consider that there are six months of exposure to storms of rain, hail and snow, with the accompanying changes of temperature, which, despite the double-wall and packing, must have a disturbing effect upon the sensitive cluster within. Furthermore, unless the apiary be securely fenced, disturbances may arise from swine and unruly cattle, or possibly from human depredators.

The obstacles in the way of the second condition, namely, total darkness, are not so great, but do in a degree exist.

The entrance left open for air will also admit light, and although but a faint ray, may be sufficient to tempt them to flight when a disturbance occurs, at a time when exposure would be fatal, thus gradually depleting the colony. In the cellar specially prepared for them there is not, as I can show, the slightest obstacle in the way of securing total darkness.

The third condition—pure air of uniform temperature—although last in the order, is, I am sure, first in importance. This secured, and the problem of wintering bees has been practically solved. Changes of temperature, if felt, produce disquiet. That a colony of bees with all their packing and other absorbents can be as thoroughly protected from these changes when the mercury stands on one day at 35° above zero and on another at 10° below, as they could in a dry repository, with a range of temperature not to exceed 10°, does not seem possible. I believe that this condition can be better secured in the cellar than by any method of out-door packing that has yet come under my observation.

Precisely the best kind of cellar will doubtless, like the various kinds of hives we use, be a subject for difference of opinion and debate; but with the essential characteristics secured, methods may vary. A cellar for the accommodation of 50 colonies can be easily constructed from a portion of any ordinary vegetable cellar. If square, it should be about 10 feet each way, with double plastered wall with air space, plastered overhead, and made impervious to frost. If the floor is not dry, pave and cement it. The door should be tight-fitting. A window is not necessary for the bees. I should by no means omit it, however, as it makes the room a treasure, worth all its cost, for a milk room or pantry in the heat of summer. The window should be double-glassed and provided with a close-fitting shutter that will exclude every ray of light when desired. The room thus arranged is complete, and its ventilation is as simple and inexpensive as its construction. Connect one side of the room, near the floor, in the most convenient way with the chimney in most constant use, by means of a stove-pipe. From the opposite side of the room, midway between floor and ceiling, run a common five or six-inch drain tile—at any convenient angle, well below the frost—about 50 feet in length, bringing it to the surface by a right angle, and covering it in such a way as to exclude leaves and other substances while allowing a free ingress of air. If you close the door you will perceive a steady, quiet flow of tempered air through the room. The draft can be regulated by a damper in the stove-pipe. In extremely cold weather the air should flow through the tile very slowly, that it may be brought to the temperature of the earth surrounding it.

In a cellar similar to this I have kept bees for the last four years without the loss of a colony. We estimated the cost of the cellar at $40. I am informed that a chaff hive like Shuck's cannot be manufactured for less than $4.00, a price just double that of a single-wall hive. For 50 hives of each kind the difference in price would amount to $100. Deduct $40 for the cellar and we have a balance of $60 in favor of cellar wintering.

Another item in its favor is that a hive securely housed one half the year will last much longer than one that is constantly exposed. A common objection made to cellar-wintering is the labor of carrying the hives into and out of it, and perhaps doubling the operation by giving them a mid-winter flight.

We paid a man 50 cents for putting 25 colonies into the cellar (of course under our supervision). At this rate the cost for the season of moving 50 colonies would amount to $4.00. Will that sum cover the cost of packing 50 chaff hives?

A superiority claimed for the double-wall hive is that it will better protect the bees from the heat of the sun. Will it not also retain the heat generated within by brood-rearing longer than the single hive, the walls of which come into immediate contact with the cool night air? For summer protection we think we have something that has all the advantages with some of the disadvantages of a chaff hive, and at a slight cost. It is an awning made of canvas, about three feet wide by four feet long, furnished with slats at each end, and with four screw hooks, one at each corner, which fasten to four stakes. The canvas is prevented from resting on the top of the hive by a strip of board three or four inches wide, which serves as a sort of ridge-pole. Under the awning the breezes play, and the hive is shaded and fanned when desirable, and when it is not it can be laid aside. In the hottest weather, with our hives and awnings, the bees do not cluster out except when ventilation has been neglected. The awning, it must be remembered, is a protection to the hive from weather-beating as well as a source of comfort to the bees.

I am now done with the subject under special consideration, but would like to add a few words, personal and otherwise, upon bee-keeping for women. Within the last two or three years I have heard from various sources that I was about to give up bee-keeping, and the inference was invariably that it was no longer profitable. The facts are that I have not given up bee-keeping, and probably never shall entirely. To what extent I shall continue it will depend chiefly upon whether or not it will conflict with other duties that cannot be ignored.

To nearly all women, at some time or other, will come the query "What can I do for self support in case a possible emergency makes it necessary?" It came to me eight years ago, and I thought I would see what there was in bee-keeping. Every year up to the present has found me amply satisfied with the returns for my time and labor, but has not proved that I could rely upon it for self support. Whether I could or not I was anxious to demonstrate by actual experience, for the benefit of other women as well as my own, for although a failure on my part would by no means signify failure for others, it would most certainly prove that what I could do others also could do. I wished to see how many colonies I alone could do the work for, and also how many more I could have sepervision of and make profitable. This I have not been able to accomplish, and perhaps never shall. Duties that cannot be laid aside would now make the attempt impossible. It may be that other women have made the experiment and brought it to a successful termination. I hope so, but do not know. There are many of us, however, who have made it profitable in proportion to the extent to which we have engaged in it. All vocations are now open to woman, and it is a matter of little or no surprise to see her try her hand at any of them; while from the necessities existing we are glad it is so, yet there are multitudes of women who rejoice at opportunities toward self-support that do not lead away from home—"the woman's kingdom."

Officers elected for the ensuing year were as follows: President, A. J. Cook, Lansing: Vice Prisidents, J. A. Robinson. Battle Creek; A. W. Colm, Belleview; Treasurer, L. B Baker, Lansing; Secretary, T. F. Bingham, Otsego.

Battle Creek, will be the next place of meeting. On account of being extremely busy now I am not able to write out the official report of proceedings, but hope to be able to furnish them soon. T. F. BINGHAM, *Sec.*

[Several essays were read which have been omitted from this report, but will be published hereafter.—ED.]

Letter Drawer.

Disturbing Bees in Winter.—Will it do to disturb bees in winter by putting on mats? I have some mats on that are made from old quilts; they will not absorb the moisture, but let it freeze on top of the frames. What shall I do with them? N. W. WILLIAMS.
North Union, O.

[No; if cold enough to chill them. Let them alone till warm enough to fly, then change the quilts.—ED.]

Adulteration.—The Weekly AMERICAN BEE JOURNAL is at hand; I am well pleased with it, particularly with your article on adulteration. Continue to sound the trumpet of warning. Let our brother bee-keepers read and re-read. All such articles should be taken to our county papers and copied into them, so that every reader in the land will become posted and a general cry will go up to our legislators for more stringent laws in the matter. The first step is to educate our people against adulteration. Is there any better chance to do this than through our local papers? E. LISTON.
Virgil City, Mo., Dec. 27, 1880.

The Outlook.—The present outlook for bees is not at all encouraging in this section. Many have left their bees on summer stands wholly unprotected, which means, live if you can. The bees went into winter-quarters much less in numbers per colony than usual; many more dying late in the fall and early winter than usual, leaving bees generally in poor condition for the long winter. I much like the appearance of the Weekly BEE JOURNAL and I heartily wish it a happy new year.
Byron, Ill., Jan. 3, 1881. A. RICE.

Wintering Bees.—I have just received the Weekly BEE JOURNAL with which I am much pleased. I would send you the money for it now but quite a number of us will send for it in a short time, which is much easier than sending for one copy at a time. We are using the Golden bee hive in this county; it is a success. I cannot afford to do without the AMERICAN BEE JOURNAL for three times its cost. As to the wintering of bees, all that the JOURNAL contains on this subject is worth nothing to us. as our bees winter themselves. They go into winter-quarters with plenty of honey and are therefore, prepared to take care of themselves. I procured a Henderson queen last summer; she is a real beauty. I am going to supply my apiary with queens from her next year. Please send me the Weekly and the money will be sent in a short time. T. F. BIARD.
Biardtown, Texas.

[Certainly; if *requested* to do so, we cheerfully send on the BEE JOURNAL and give a little time. In fact, we much prefer to do so, rather than to take the name from our "List" and then substitute it, a short time afterwards. All we want to know is—that it is desired to be continued, and hence give this general notice.

If any one desires the Weekly BEE JOURNAL and it is not convenient to pay for a year at once, they can send $1.00 for 6 months, or 50 cents for 3 months. It costs no more in that way, except the postage. For all fractions of a dollar send one, two or three-cent postage stamps.—ED.]

Losses in Winter Feared.—I have about 50 colonies of bees; they did well here in the early part of the season, but not so, in the latter part. I fear heavy losses in bees before spring, the weather is so rigorous. I wish the Weekly BEE JOURNAL all possible success. JAMES A. BUCK.
Washington, D. C.

Prospect for next Season.—Bees in our locality done poorly this season. I have 125 colonies all in good condition in the Mitchell hive, all packed with clover chaff, on their summer stands. We look for a big thing in the way of honey next year. The white clover is abundant. Success to the JOURNAL in its new form. S. M. OLDHAM.
Reynoldsburg, O., Dec. 28, 1880.

Good Crop.—The first number of the Weekly BEE JOURNAL to hand. I am well pleased with it. My bees have done very well this year. I obtained 40 lbs. of honey from a second swarm, all in 1-lb. sections, and have plenty to winter on. Bees are well packed out-doors. The weather is very cold; 10° below zero here now.
D. P. CAMPBELL.
Park Hill, Ont., Dec. 30, 1880.

Cold Weather in Kentucky.—The extremely cold weather of November has killed a good many weak colonies, and the strong ones have suffered more or less. But few bees here are prepared thoroughly enough to endure such cold weather, and I fear many will perish before spring comes. N. P. ALLEN.
Smith's Grove, Ky., Dec. 13, 1880.

Much Needed.—I am greatly pleased that our editor has concluded to give us a weekly BEE JOURNAL. The want of such an aid to our labors was much felt during the honey season, when timely articles from our best writers were eagerly looked for and gladly perused as soon as received.
WM. S. BARCLAY.
Beaver, Pa., Dec. 20, 1880.

Bees Need a Fly.—My bees have all been housed for some time—they need a fly now. Heavy losses in bees are reported among those who use box or single-walled hives.
M. G. REYNOLDS.
Williamsburg, Ind., Dec. 21, 1880.

Bees in Scotland.—As far as I can learn from various districts in Scotland, bees are all in excellent condition; I hope they will continue so till spring. The last heather honey harvest here was the best for upwards of 50 years. The weather has been storming for the past 10 days, but more settled and mild to-day. JOHN D. HUTCHISON.
Glasgow, Scotland, Dec. 14, 1880.

Space under Combs.—I am well pleased with the first number of the Weekly BEE JOURNAL. My honey crop for this season was over 5,600 lbs.; average over 50 lbs. per colony. I had more honey this season than last. My experience this fall is like Mr. Wm. Camm. I think there should be quite a space under the combs in winter.
BENJ. FRANKLIN.
Franklinton, N. Y., Dec. 27, 1880.

Not a Pound of Honey.—Another season is past and our labors are closed in the apiary for 1886; and what is the result; simply a failure, not a pound of surplus honey from 23 colonies; being the poorest season for honey since I have kept bees; but I am not discouraged. I hope for better things next year. I must have the Weekly BEE JOURNAL, cannot afford to lose a number, even if I did not get any honey last year. H. D. EDWARDS.
Delhi, Ill.

Hard Winter for Bees.—I have sold my comb honey in Buffalo at 18c. per pound. My 60 colonies are packed in plainer shavings and are in good condition so far. A man reported to me to-day 9 colonies dead out of 90—frozen he says. It will be a hard winter for bees unprotected. I am glad the JOURNAL is to be a Weekly hereafter. I wish it success. JAMES S. LORD.
Linden, N. Y.

Good Yield.—I have 50 colonies of hybrids, and have sold $185. worth of honey at 12½ cents per pound, and have consumed and given away some $60. worth more. Put me down for the Weekly BEE JOURNAL.
Weston, Texas. A. D. BUCKLY.

Comb Foundation.—"While the Dunham foundation I believe is sold for the same price as the other sorts, it is really worth more, from the fact that it is more difficult to make." Twice have we read the above in the BEE JOURNAL. May we add: and for the other reason that it does not sag, and entirely does away with any use for wax sheets, pressed on strips of wood, paper, wires, etc. Our friends will excuse us we hope—why mumble the truth as the donkey does a thistle, cautiously?
Carson City, Mich. HIRAM ROOP.

Had a Fly.—My bees have had a good fly the last two days, the first since the end of October; they are yet on the summer stands. Most of them are in double-walled hives. I have about 40 colonies in Langstroth hives, and am undecided whether to put them in the cellar or not. I lost two-thirds in cellar last winter. HIRAM CRAIG.
Fort Calhoun, Neb., Dec. 13, 1880.

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☞ The Northeastern Bee-keepers' Association will hold their Eleventh Annual Convention, in the Common Council chamber, at Utica, N. Y., on the 2d, 3d and 4th days of February, 1881. The Executive Committee are determined to maintain the high standing the Association has justly gained in the past, and propose to out-do all former efforts at the coming Convention. Essays or addresses are expected from Capt. W. F. Williams; Prof. J. Hasbrouck; Mrs. Frances Dunham; James Heddon; Chas. Dadant; H. A. Burch; Jno. Y. Detwiler; C. P. Dadant; A. G. Thurber; W. A. House; A. J. King; Julius Hoffman and others.

A gold medal will be awarded for best essays, on the following subjects: "The different races of bees and their crosses," "Wintering bees," "Marketing honey," "How can we make the apiary the most profitable?"

For best essay upon any subject outside of those mentioned, one tested Cyprian queen, donated by L. C. Root.

Diplomas will be awarded for best display of implements; the best comb foundation for brood-chamber; for surplus boxes; best honey extractor; best bee smoker; for the most practical bee hive.

One dollar each, for the best crate of honey in the most marketable shape, and for the best package of extracted honey.

For the neatest and best honey crate and section boxes (cost, quality and finish to be considered), one tested Italian queen, donated by Geo. W. House.

All are invited to send implements for competition or exhibition. Articles sent to the Secretary will be sold or otherwise disposed of as the owner may direct. It is desired that all articles sent be the same as kept in stock, or forwarded to purchasers
GEO. W. HOUSE, *Sec.* L. C. ROOT, *Pres.*

☞ The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will meet in the Temperance Hall, Freeport, Ill., on Tuesday, Jan. 11, 1881. Mr. T. G. Newman, editor of the AMERICAN BEE JOURNAL, has consented to be present and will deliver a lecture on Progressive Bee Culture. Several other prominent bee-keepers are expected to be present. A general invitation is extended to all interested in bee-culture to be present.
J. STEWART, *Sec.*

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CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
Bee-Keepers' Magazine (A.J King)	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T.G.Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

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Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY.—Light comb honey held at 18@20c. in 1 and 2 lb. sections; in larger packages, 15@16c.; dark, 12@14c. Extracted, 9@10c.

BEESWAX.—Choice yellow, 20@24c; darker, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 17@18c.; fair do., 15@16c.; dark do., 11@13; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 80@85c.

BEESWAX.—Prime quality, 20@24c.
H. K. & F. B. THURBER & CO.

CINCINNATI.

HONEY.—The market for extracted clover honey is very good, and in demand at 10c. for the best, and 7@8c. for basswood and dark honey. The supply of comb honey is good, with a fair demand. We pay 16c. for the best.

BEESWAX—18@24c. C. F. MUTH.

SAN FRANCISCO.

HONEY—Comb honey, 12@14c. Extracted, choice white, 7@7½c.; off-colors, 6@7c.

BEESWAX—22@24c., as to color.
STEARNS & SMITH, 423 Front Street.

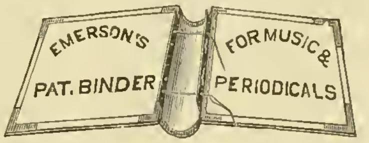
◆

Local Convention Directory.

1881. *Time and Place of Meeting.*
Jan. 11—N. W. Ill. and S. W. Wis., at Freeport, Ill.
13, 14—Indiana State, at Indianapolis, Ind.
18—Northeastern Wisconsin, at Oshkosh, Wis.
Feb. 2—Northeastern, at Rome, N. Y.
5, 6—Ashtabula Co., O., at Andover O.
W. D. Howells, Sec., Jefferson, O.
April 5—Central Kentucky, at Winchester, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
Wm. Williamson, Sec., Lexington, Ky.
Sept.— —National, at Lexington, Ky.
--Kentucky State, at Louisville, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Binders for the Bee Journal.



We can furnish Emerson's Binders, gilt lettered on the back, for the AMERICAN BEE JOURNAL for 1880, at the following prices, postage paid:
Cloth and paper, each........................50c.
Leather and cloth..........................75c.

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☞ We can also furnish the Binder for any Paper or Magazine desired.

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974 West Madison Street, Chicago, Ill.

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The Horse

BY B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.

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One to three weeks, each insertion,	20	cts. per line.
Four " or more" "	18	" "
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Twenty-six " " " "	10	" "
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THOMAS G. NEWMAN,
974 West Madison Street, Chicago, Ill.

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SPECIAL NOTICES.

☞ Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

☞ When changing a postoffice address, mention the *old* address as well as the new one.

☞ We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

☞ Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

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OF SNOW-WHITE POPLAR.
They are perfect beauties. Prices again reduced. Samples 3c.; Illustrated circulars free. Address,
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BE SURE
To send a postal card for our Illustrated Catalogue of Apiarian Supplies before purchasing elsewhere. It contains illustrations and descriptions of everything new and valuable needed in an apiary, at the lowest prices. Italian, Cyprian and Holy Land Queens and Bees.
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JAMES FORNCROOK & CO.
Watertown, Wis., Dec. 16, 1880. 1wtf

Small Farm and Bees to Rent.
As I have not sold my farm, I will rent it to a responsible party, with 35 colonies of bees, 150 empty hives, &c. It has a large maple sugar yard, with 200 large tin sap buckets and other things too numerous to mention. For particulars see page 580, December No. of Bee Journal.
1t **L. MARTIN, Hesperia, Mich.**

Hand Wanted—To take charge of small apiary and do farm work. Married man preferred. Come recommended. W. Z. Aydelott, New Albany, Ind.

DON'T YOU FORGET to send for **Moore's 4th Annual Circular** of Perfection Honey Box, Italian and Cyprian Queens, Paper for Separators, etc. Address,
1t **J. E. MOORE, Byron, N. Y.**

SOMETHING NEW in my circular for 1881. Send for it. Good Queens **80c.** Colonies equally low. **E. A. THOMAS**, Coleraine, Mass. 2w2tp

SUPPLIES FOR THE APIARY,
FOR 1881.
It is to every person's interest, when they wish to purchase anything, to go where they can get the most for their money. State on a postal card just what you want, and we will let you know by return mail what we will furnish it for. No Circulars. Address,
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3-frame nucleus 3 00
2-frame nucleus 2 50
By express, safe arrival guaranteed.
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1m6t

BEES CHEAP FOR CASH.
150 Colonies in two-story Langstroth hives.
150 " " Simplicity "
All in good condition to last until the end of January, 1881. **GEORGE B. PETERS.**
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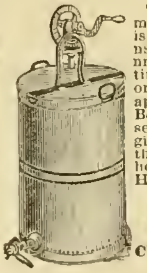
MUTH'S HONEY EXTRACTOR
AND UNCAPPING KNIFE.



The Extractor is made of all metal, is always ready for use, easily cleaned, and will last a lifetime. In fact, it has only to be used to be appreciated. Every Bee-Keeper should send for my circular giving details about the care of bees and how to get the most Honey.

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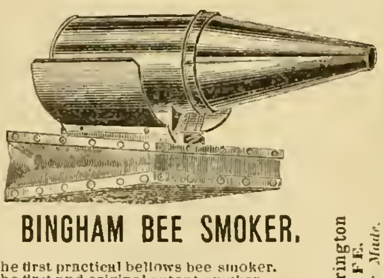
C. J. WARD, Editor and Proprietor.
182 CLARK ST., - CHICAGO.

Ha! Ha! Ha! Ha! Ha! Ha! Ha!



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ILLUSTRATED CATALOGUE
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Bee-Keepers' Supplies,
A full and complete Price List, comprising 32 pages.
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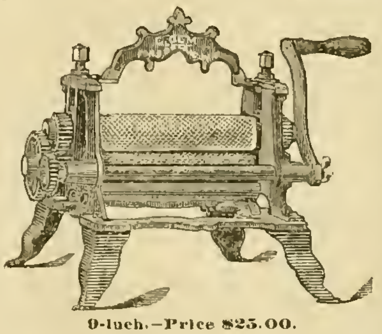
C. Olm's Comb Foundation Machine.



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Warranted Queens 1.00
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Cook's Manual of the Apiary.—Entirely rewritten, greatly enlarged and elegantly illustrated, and is fully up with the times on every conceivable subject that interests the apiarist. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, **$1.25**; paper covers, **$1.00**, postpaid. Per dozen, by express, cloth, $12.; paper, $9.50.

Quinby's New Bee-Keeping, by L. C. Root.—The author has treated the subject of bee-keeping in a manner that cannot fail to interest all. Its style is plain and forcible, making all its readers sensible of the fact that the author is really the master of the subject. Price, **$1.50.**

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Food Adulteration; What we eat and should not eat. This book should be in every family, where it ought to create a sentiment against the adulteration of food products, and demand a law to protect consumers against the many health-destroying adulterations offered as food. 200 pages. Paper, **50c.**

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Honey, as Food and Medicine, by Thomas G. Newman.—This is a pamphlet of 24 pages, discoursing upon the Ancient History of Bees and Honey; the nature, quality, sources, and preparation of Honey for the Market; Honey as an article of food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, &c.; and Honey as Medicine, followed by many useful Recipes. It is intended for consumers, and should be scattered by thousands all over the country, and thus assist in creating a demand for honey. Published in **English** and **German**. Price for either edition, **6c.**; per dozen, **50c.**

Wintering Bees.—This pamphlet contains all the Prize Essays on this important subject, that were read before the Centennial Bee-Keepers' Association. The Prize—$25 in gold—was awarded to Prof. Cook's Essay, which is given in full. Price, **10c.**

Bees and their Management. This pamphlet was issued by the Italian Bee Company, and has had a large circulation. The price has been reduced from 20 cents to **10 cents.**

The Hive I Use—Being a description of the hive used by G. M. Doolittle. Price, **5c.**

Kendall's Horse Book—No book can be more useful to horse owners. It has 35 engravings, illustrating positions of sick horses, and treats all diseases in a plain and comprehensive manner. It has a large number of good recipes, a table of doses, and much other valuable horse information. Paper, **25c.**

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Ropp's Easy Calculator.—These are handy tables for all kinds of merchandise and interest. It is really a lightning calculator, nicely bound, with slate and pocket for papers. In cloth, **$1.00**; Morocco, **$1.50**. Cheap edition, without slate, **50c.**

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ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., JANUARY 19, 1881. No. 3.

THE AMERICAN BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR,
974 WEST MADISON ST., CHICAGO, ILL.

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Free of postage in the United States or Canada.
Postage to Europe 50 cents extra.

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CORRESPONDENCE.

For the American Bee Journal.

The Stingless Bees of South America.

REV. L. JOHNSON.

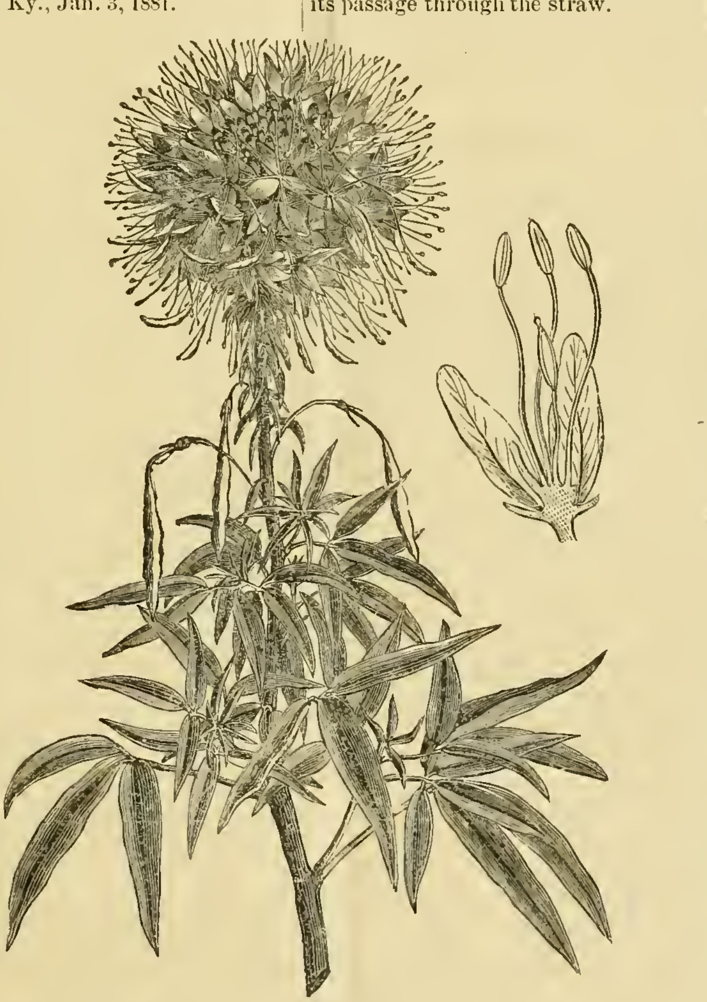
I received, a few days ago, a copy of Mr. Hawley's circular upon the stingless bee, mentioned in the AMERICAN BEE JOURNAL of January 5th. As I suppose thousands of these circulars are distributed among the bee-keepers of America, many of whom are yet inexperienced, it is well to notice this new advocate for public favor.

1st. I think the introduction of an entirely new variety of bee at this time, whose merits are yet untried, is exceedingly injudicious. Only last year we received the Cyprian which is still on trial. We do not yet know their true merits in their purity, much less when crossed with other varieties. We all know the difficulties we have encounted with mixtures in the past. Let us not increase them, by introducing, to any great extent, new families, until we thoroughly test our present importations. Think of approaching a hive of bees we thought stingless, yet in which one-fourth or one-eighth are vindictive hybrids, armed with "venom-tipped javelins!" The very thought settles it.

2d. From the testimony of Mr. Wagner and others, who years ago investigated the merits of all these new claimants, their honey gathering qualities are uncertain, and their ability to endure our vigorous winters is exceedingly questionable. In truth from Mr. Hawley's statements, some of these bees produce a honey which is unfit for use.

3d. We consider the stings of our blacks and Italians an actual advantage. The bee-keeper who is careful and intelligent in the management of his bees, need not be stung, and even if stung, in the course of a year or two he becomes so inoculated with the poison, that he is no longer affected by it. Thieves we know are prevalent everywhere, and nothing often protects our hives against their depredations, except the fear of being stung. Let it but once be generally known that our bees cannot sting, and our honey will be pilferred as constantly as our mellons and fruit. A big dog, and shot-gun, and a faithful guard must then occupy the place of the smoker, bee-vail and guantlets. As for myself I think the latter preferable and decidedly the cheapest. While we all want the best bee the world affords, we should not, increase our present difficulties by grasping at the near shadow of these untried rovers of the tangled wilds of Brazil.

Walton, Ky., Jan. 3, 1881.



Cleome integrifolia, or Rocky-Mountain Bee Plant.

For the American Bee Journal.

Lower Ventilation in Winter.

J. M. SHUCK.

The ventilator in the bottom of the hive, recommended by the lamented Quinby, seems to be misunderstood by some of our bee-keepers (see article by Wm Camm in AMERICAN BEE JOURNAL of Jan. 5, 1881.)

This hole in the bottom of the hive was doubtless intended, originally to ventilate the hive during the heated term of the honey season, and was afterwards found to be useful in winter.

In use, the ventilator should be closed from March 1st until the heat in the hive begins to drive the bees to the outside for air, say when the mercury stands at about 90° to 100° in the shade. Work in hives thus treated will usually go on without interruption, when hives that are not suitably ventilated are almost wholly idle. On the approach of cool weather the ventilator should be closed until preparations for winter.

About November 1st in this latitude, (better October 1st) the hives should be suitably packed for winter, when the ventilator in the bottom may be opened, and coarse straw or litter stuffed *under* the hive to prevent the cold air entering the hive until sufficiently tempered by its passage through the straw.

It may not be known upon what theory this ventilation is beneficial in winter, but long continued use and frequent tests have proven its value, which is of more importance than the mere theory.

Some eminent apiarists, advocate that the bottom ventilator be *open and unprotected* during the entire winter. While this latter practice seems extreme, some very fine results have attended it, but nothing equal to the more conservative practice of opening the ventilator for winter and protecting with straw in the way indicated.

Strong wire-cloth should be used, that cannot be cut by rats or mice, and not more than ten meshes to the inch. Such wire-cloth as this, with the care as to the seasons alluded to, will entirely prevent the closing of the ventilator with propolis, and at the same time prove the value of "lower ventilation in winter" and in summer.

Des Moines, Iowa.

For the American Bee Journal.

Rocky Mountain Bee Plant.

D. S. GRIMES.

Some of the descriptions of this plant —*Cleome integrifolia*—hardly do it justice as a honey-producer. It grows to the height of four or five feet, with hard woody fibers like mustard, often measuring more than one inch in diameter.

The seeds are borne in pods much the size and appearance of the black mustard. It blooms early in the spring, and continues in bloom until frost. As the season advances the spikes of the beautiful flowers continue to grow in length, with seeds and flowers in all stages of growth from the full pods to the new opening bloom. The leaves throw off a very offensive odor when handled.

As a honey-producing plant it is second to no other. In our apiary we have forty colonies of bees, and although we are located among vegetable and fruit gardens our bees prefer this plant to all others.

It is not troublesome in cultivated grounds, but prefers the roadside or waste places. We value it highly, and without doubt, is worthy the attention of bee-keepers.

Denver, Col.

For the American Bee Journal.

My Report for 1880.

W. D. WRIGHT.

I have to report the poorest season since 1869 in this section. Last fall I placed half of my bees in a bee-house, above ground; they were in good condition when put in, and wintered quite well, considering the warm weather we had. As I was building a shop, with a bee cellar underneath, the rest of our bees were left upon the summer stands, until the cellar was ready to receive them, which was much later than I expected; and as they were totally unprepared for wintering out of doors, they suffered considerably from cold snaps in the early winter. When removed to the cellar quite a number of them showed signs of dysentery. The weather was so warm after placing them in the cellar, that I could not keep it at the requisite temperature, consequently they were very uneasy. The cellar was also quite damp, which of course did not help matters any, and the result was that I lost quite heavily. As the weather turned out, they would probably have wintered quite as well if they had been left on their summer stands the remainder of the winter.

The spring was one of the worst for bees that I have ever experienced. There were but few pleasant days on which bees could fly with safety; cold, bleak winds, and cloudy weather prevailed most of the time, when it was almost sure death to the little workers to venture beyond the entrance of their hives. Instead of increasing as usual in May, they were at a stand still, or even decreasing in numbers, I commenced the season with 165 colonies, some of them were very small. I received an increased of 63 swarms (mostly natural) and 4,503 lbs. of surplus honey, all from buckwheat (3,325 lbs. of the above was comb honey, the balance extracted). This gives about 38 per cent. increase, and an average of a little over 27 lbs. of surplus honey to each colony, against an increase of 65 per cent. and an average of 91 lbs. and a fraction (⅞ of which was comb honey) of surplus honey to each colony last season.

White and melilot clover yielded no honey this season, in this section. Basswood yielded well for three or four days and then stopped short, but as the hives contained but little honey at this time, the bees appropriated it for their own use, and they needed it much, as five or six weeks of scarcity followed this short flow. On August 10th, the bees commenced storring buckwheat honey, and continued moderately for about four weeks.

I notice that several correspondents complain of the frequent failure of buckwheat to secrete honey. In this section it is our main dependence for surplus, and has not failed to give us a fair yield for the past six years.

My bees are all in one location, and there is probably 150 colonies besides, within a radius of one mile. I am confident that this locality was over-stocked this season, and think that I could have made as good a report from half the number of colonies.

Knowersville, N. Y.

For the American Bee Journal.

Adulteration of Honey with Glucose.

L. H. SCUDDER.

Feeling as I do the importance of waging an incessant warfare against the use of the "vile stuff" in adulterating honey, sugar and syrups of all kinds, I desire to urge upon all the necessity of agitating the question until we secure the passage of a law by Congress against the adulteration of food of any kind. It will be useless to undertake to secure the passage of a law simply to prevent the adulteration of honey, for we will not be able to secure the necessary pressure to accomplish it. I recently had a conversation with our member of Congress on the subject, and he informed me that a general law prohibiting the adulteration of all articles of food would be more easily obtained, because more would be interested in the passage of such a law, if we could cause them to see the importance of it.

We as honey producers feel the effects of the adulteration of honey *keenly*, because it is a death-blow to our business unless we can secure protection. Just let me call your attention to a few facts in relation to the matter. First, please notice the fact that now with less than one-fourth of a crop of honey, there is no appreciable advance in the price of extracted honey? Why? Because "Glucose" is cheap and unprincipled men *numerous*, and so long as enough honey can be obtained to flavor the compound, the market will be supplied with "*pure honey*." Notice the market quotations on extracted honey for the last three years and you will discover no fluctuation worthy of notice, notwithstanding the great difference in the annual products. Our friends have long been wishing for firm prices for honey, and they seem at last to have their wish 7 to 8 cents seems to be the fixed price at wholesale in Chicago for extracted honey.

Let me caution you not to be too confident that even such prices can be obtained in the near future. Just note, if you please, how rapidly the manufacture of glucose is increasing; factories are being started in all parts of our country, enough are already in operation to consume five millions of bushels of corn annually in the west alone. Now when you take into consideration the fact that they obtain over three gallons per bushel of what they call "glucose" or "corn syrup" you will see that over *fifteen million gallons* annually are thrown upon our markets to be sold and used in various ways. But mark you, not one gallon is sold to the consumer by its proper name, the dear people buy it in their honey, candy, sugar, golden syrup, drips, and in other commodities we know not of.

If your druggist sells you poison the law compels him to label it, that no harm may come of it. Then why not compel these men to do the same? 'Tis true they may not sell a mixture so destructive as arsenic or any of the deadly poisons, but just as certainly injurious as any of them. Now my friends, in justice to ourselves and humanity, let us continue our warfare until the people by their Representatives in Congress assembled, say to those men that their goods must be properly labeled and sold on their own merits.

I fancy when that is done there will be a decline in the *Sulphuric Acid and old rag* market.

New Boston, Ill.

For the American Bee Journal.

The Duplication of Queens.

D. A. PIKE.

It is not my intention to stir up the much-vexed question of queens duplicating themselves, but I wish to show to the readers of the AMERICAN BEE JOURNAL that it was no fault of mine that the test did not come off. I sent the queen to Prof. A. J. Cook on the 14th of June, according to contract. I did not hear anything from him direct until Sept. 12, but I heard from the editor of the JOURNAL that Prof. Cook had received the queen, and he was rearing the queens to make the test. Here is what he says about the queen and her daughters:

Lansing, Mich., Sept. 2, 1880.

DEAR SIR: The queen came all right, and was safely introduced; I feel certain that I acknowledged her receipt at the time. She is very beautiful, and her young queens and drones have been greatly admired by many visitors; her young queens are all beautiful. I am very busy, but will try to send you a queen soon. A. J. COOK.

The readers of the BEE JOURNAL will judge for themselves in regard to the queens. For their benefit let me say that I have had the albino bees since 1873; in my judgment, they have proved to be a superior race of bees; they are better honey gatherers than the Italians, and are more gentle to handle. Success to the AMERICAN BEE JOURNAL.

Smithsburg, Md.

[As Prof. Cook is quoted in the above, we requested him to report the result of the test for the BEE JOURNAL, and it is as follows:—ED.]

Mr. Pike's letter gives me the opportunity which I desire, to rise and explain. The facts as given by Mr. Pike are wholly correct, though he fails to add that I wrote him that the young queens were not exact copies of the one he sent. I wrote the result to him, as I thought he was the proper person to give it publicity, inasmuch as I understood that the sequel had no importance so far as he and Mr. Moon's contract was concerned, as I supposed that was given up.

I repeat here substantially what I wrote to Mr. Pike. The queen was a great beauty, so every one said, and I showed her to many. Her worker progeny were also well marked, very bright and beautiful. Her drones were also exceedingly fine, the most highly colored ones I have ever seen. The young queens were also very beautiful, but not one was there which was not easily distingnished from the mother, and that, too, after they had fully developed and were well to laying. The workers were not all just alike, nor were the drones. These conclusions were not mine alone, but were those of my students and many others whose opinions I asked. I may add, that the colony did not equal some of my others in rapidity of increase, though it was a good one.

I believe this queen and her progeny are what we may expect from long, careful and faithful selection, with color as our chief object. The longer we thus carefully breed, the greater uniformity will we secure; but we can never attain that point where we shall be perfectly certain that the offspring of our bees or any other of our animals will perfectly copy the parents, or be just alike. It is contrary to nature; and so Mr. Moon is surely correct.

The nearest approach to perfect reproduction and uniformity of offspring, which I have met, is shown by the Palestine bees—Holy Land bees. This, of course, is the result of close in-and-in breeding by nature. While from the most severe selection of the fittest by the same relentless hand, no deterioration, but rather the increase in excellence, have been the unvarying result. Yet even here we shall see variation from perfect uniformity. A. J. COOK.

Lansing, Mich., Dec. 13, 1880.

For the American Bee Journal.

Loss of Bees in Winter.

HIRAM ROOP.

We have often hinted in the BEE JOURNAL that one-half of all the bees were lost, each winter, in the Northern States. Our assertion was based upon facts, gleaned from a wide scope of country, each spring, as to the condition of bees, how wintered, etc.

We are now having another severe winter what the result will be on the honey gatherers, is easily conjectured. We apprehend that two-thirds of the colonies in Michigan will be lost. Shall we, then, after a few ineffectual trials at a more rational method for safe wintering, sit down and allow this sweeping destruction to go on? We can winter, safely enough, in a good cellar, but, alas, the spring; for our part, we would rather have 100 colonies left out of 200 wintered on summer stands, than to have 150 left out of the same number wintered in any cellar or depository.

Carson City, Mich.

For the American Bee Journal.

Prevention of Swarming.

GREINER BROS.

When we take the above heading for our subject, it is not with the intention to take the position of instructors; we only wish to give our 5 years experience on this point, to show that it requires time and experience to get acquainted with the business, and persistent labor to make it profitable.

Amongst other difficulties, swarming seems to take the lead in causing disappointments, and to illustrate this we will relate an incident, which came under our observation this season.

We had occasion to pass a neighbor, who kept some bees in the old fashioned box-hive way of letting bees have their own way, very frequently this summer, and the bee question formed a good share of our conversation whenever we met. These few colonies of our friend were nicely to work in boxes; they were filled with comb and honey ready to begin capping about the middle of June. The next time we passed, our neighbor met us with joyful countenance and informed us that his bees had swarmed, considering himself the lucky gainer of so many swarms. On questioning: "Do they work yet in boxes?" he answered; "No; they not only stopped working, but they have taken all the honey they had in the boxes, with them, when they swarmed." We learned at the close of the season, that our friend had only comb without honey for his share, his bees never went to work in said boxes.

Cases of this kind all bee-keepers have experienced and it is a settled matter, that swarming must be controlled, the only question is, which is the most profitable way. To ascertain this, we have studied everything that has been written on the subject for the last 3 or 4 years, and have experimented on nearly all the different methods, which older bee-keepers have pronounced the best. We would say here that we never had the privilege yet, to be with our bees constantly through swarming time, but could visit them only once a week; of course we had to adopt plans according to this unfavorable circumstance and could not manage our bees to suit our own ideas.

The different ways we have tried to prevent swarming are, distroying queen cells, introducing empty comb in brood-nest weekly, exchanging strong with weak colonies, dividing colonies, increasing by the shaking off process (see G. M. Doolittle, AMERICAN BEE JOURNAL, page 355, 1879), introducing a young queen, giving plenty of empty comb and chaff hive as non-swarmer.

In the beginning of our bee-keeping career a bee-keeping friend told us that swarming could be very easily controlled by destroying queen-cells; we did not know any different at that time and consequently believed it. That season turned out to be a good honey year and as we had only transferred colonies (which are not very liable to swarm anyhow), under our care, they did not swarm, to speak of.

The second year proved to be a good honey season also; a good share of our bees being transferred colonies, plenty of surplus room was given and all queen-cells destroyed, they worked nicely in boxes and swarmed very little that year. By that time we believed in destroying queen-cells as an infallible means to prevent swarming and made our plans for the following season accordingly and what was the result? The season failed to give us any great amount of surplus. Honey came in just fast enough to keep bees breeding nicely, but too limited to induce them to work in boxes. Swarming time arrived and in spite of our distroying queen-cells, swarms poured out by the wholesale, our increased labors in cutting out cells availed us nothing; the more we worked the more these swarmed, with or without queen-cells.

We transferred, that season, 15 colonies for a bee-keeping friend, he as well as ourselves felt very anxious, that these be kept from swarming and to accomplish this, we made it a point to examine them once a week, taking particular pains that no cells were overlooked. Everything went well until the latter part of June; the next day, after we had again destroyed all queen-cells, a swarm came out, the next day another, the third day still another and the fourth day three more, and by the time we called again, a week latter, 8 of the 15 colonies had swarmed and before the season had passed, we had changed our ideas in regard to prevention of swarms by destroying queen-cells.

We read, that the introduction of an empty comb in the middle of the brood-nest would keep a colony a week from swarming and also that bees with a young queen would not swarm. This we tried the next year; we had lost quite a number of colonies that winter and consequently had a good many combs at our disposition. these we used as stated, forming a new colony with a young laying queen of every 8 frames of brood, which we took, one from a hive, to make room for the empty comb. Now did this keep our bees from swarming? No; no more than did the distruction of queen-cells the year previous.

After that we divided our bees; this, if queen-cells are destroyed, will undoubtedly keep them from swarming, but on account of the heavy increase, colonies are weakened too much for working in the boxes, consequently the object to produce the most surplus is missed. A better way is to increase by the shaking off process; we commenced with those that were making strongest preparation for swarming and by close watching and repeating this operation as often as other colonies would show any inclination to swarm, we kept the upper hand of our bees pretty well; but still they swarmed more than we wished and hoped for. We transferred 6 colonies late this spring, in June, and as honey was coming in plentiful at that time applied our section cases right off. One week after we divided or rather increased these by the shaking off process, giving the three sets of comb and a young laying queen. A week later, one of these three swarmed, this of course did not meet our approval for we wished to have them continue work in the sections as they had commenced, and for that reason we hived them back, catching the queen and clipping her wings at the time, thinking that this operation would put a final stop to the ill-behavior of this unmanagable queen.

But no, another week and out they came again, this time a queenless colony, for the queen was wingless and unable to fly; we picked her out of the grass and as soon as the swarm returned, put her back in the hive; this was their last attempt and the colony made us about 90 lbs. of comb honey this summer; the whole lot has averaged 76 lbs. per colony from the original six.

We have also exchanged weak with strong colonies; this may have a tendency to keep both from swarming but it is by no means a certainty, and as we do not aim to have weak colonies in swarming time for that purpose, the plan cannot be very well followed up.

It has been supposed and remarks have been made to that effect, that a hive with sufficient chaff protection and plenty of empty comb would form a most perfect non-swarmer. To test this, we built a hive with about 4 inches of chaff all around, supplied the necessary comb and transferred a colony into the same; we did not expect that this colony would do anything but work, at least not until all the combs were filled with brood and honey. But how great was our surprise, upon returning home from one of our weekly trips, to hear that our non-swarmer had followed suit by also giving a swarm.

To sum it all up, our 5 years' experience has brought us to the conclusion that under our present circumstances, the shaking off process is the most desirable way of managing to keep bees in working condition through swarming time, but if we could be with our bees constantly, we would let them swarm the natural way. Of course, we would take the precaution to get our bees as strong as possible by the use of division boards and changing combs, and rear our queens in the forepart of the season to have them laying and ready for use. Then, when a swarm issues, we would hive it on the stand of the strongest colony that is the nearest ready to swarm and remove this one to a new location. The mother colony, which is then queenless, must be provided with a young queen, and all queen-cells of those from which no swarms are desired, must be destroyed. The entire apiary should be managed in this way and by close attention and judicious application of surplus room an abundant crop of honey may be expected.

Naples, N. Y.

* * *

For the American Bee Journal.

Mating Queens in Confinement.

KING CRAMER.

For several years I have read in the American Bee Journal the different methods tried of mating queens in confinement, and all the experiments that I have read of were made with a box or a barrel with a glass in the end of it. If a queen or a drone flies up and strikes that glass, there will be no more mating that day. There is no better way to kill bees than to let them butt against a glass. Not only that, who can tell just the right time to take out the queen for confinement or mating? I at once saw that could not be practicable, and began some experiments, the result of which, together with the *modus operandi* of arriving at it, I purpose, with your consent, to lay before your readers.

I took a frame of brood, with as many young bees as I could get, and put them in the second story of a Langstroth hive, with a strong colony of bees in the lower story in order to get their heat for the occupants of the upper story, as the nights (about the 1st of September) were getting cold. Now we have a small swarm of bees in the upper story, with the honey-board between the bees below and those above, and also a honey-board over the upper bees.

On the second day they were there I gave them a queen-cell. In two days it hatched out. I then gave them 10 or 15 young drones. Now I had the queen, drones and bees all confined in the upper story of the hive. The bees were fed and watered every morning.

The fertilizing box is 2 feet high, and fits the hive on the top. It has a muslin cloth tacked over the upper end and the lid of the hive over that.

When the queen was three days old, I made a small hole 3 inches long and ½ inch wide in the honey-board, and took the lid off the cloth, when the young bees and the drones flew around within this box, as if they were flying in and out of a hive. Every afternoon the lid was taken off the cloth 2 hours, and then replaced.

I have 2 queens in my apiary that mated by this process, and they were the only ones that I tried, as it was too late in the season to experiment further; but I can with safety say, that by the end of another season there will be hundreds of queens mated by this process, and fertilizing queens in confinement will be proclaimed a success.

Dent, O.

SELECTIONS FROM OUR LETTER BOX

Bees in Minnesota.—I am well pleased that the Journal is to come every week in place of once a month. Last spring I had 12 colonies, which were wintered in a dry cellar without losing any; sold 1; increased to 22; obtained about 350 lbs. of comb honey, and plenty of honey for wintering. I bought 20 colonies of blacks in box hives last fall, for $60, making 42; then I heard of different persons who were going to kill their bees for the honey. I obtained permission to "drive" the bees out, and thus obtained 16 colonies more, all blacks. In December I bought all of Mr. Nelson Perkins' apiary, there being 30 colonies of Italians and hybrids, 30 empty hives, 250 combs in frames, extractor and boxes, making in all 88 colonies. I have lost 2 queens up to date; they are wintering well to all appearance. It has been down to 40° below zero here this winter. The farmers here are going to sow considerable Alsike clover in the spring. I intend to encourage it all I can, I will sow all the sweet clover I can in waste places. How close can I put my hives together in the spring and have them do well? Will it do to feed amber cane syrup to stimulate breeding in the spring?

Wm. Lossing.

Hokah, Minn., Jan. 13, 1881.

[Four to six feet between hives at the sides, and 8 to 10 feet between, at front and rear, which will give ample room to manipulate one row without interfering with the next. We think a good article of amber cane syrup could be used to advantage for spring feeding. When the bees can pass in and out of the hives with perfect freedom, many kinds of feed may be sparingly given, which would prove disastrous if given in large quantities to winter on.—Ed.]

Bees had a Fly.—My bees are in fine condition, on summer stands, under a shed eight feet wide and fifty feet long. Yesterday was warm enough for them to take a fly, but to-day is very cold. I have not heard of any material loss of bees in this section this winter. I have received two copies of the Weekly Bee Journal, and to say that I am pleased with it would not fully express my appreciation. I always expect to work for its interest and for the noble work in which it is engaged. I wish it a rich harvest this year. W. W. Lynch.

Maysville, Ky., Jan. 14, 1881.

Result of last Season.—With 56 colonies last spring (poor as the season was) I obtained a nice lot of honey. I purchased an extractor last spring and the result was really surprising. From 9 colonies I obtained 93 gallons or over 1,000 lbs. of as nice honey as ever graced a table or tickled the palate of an epicure. Of comb honey I cannot say to a certainty how much I obtained. I experimented with one colony to see what could be done scientifically and I obtained 79 lbs. of nice comb honey in small boxes. The others, to a great extent worked on the let-alone plan, gave me from 5 to 10 lbs. of honey or a fine swarm of bees. I also reared a number of queens. Those colonies that did the best, had queens bred from a colony that I procured from Mr. Oatman. The queens are very prolific and the workers great foragers, being fully up to the reputation given them by Mr. Heddon. I intend to give the Cyprians a thorough test next season. I expect to get two Cyprian queens next spring from Mr. Alley. I am highly pleased to have the Bee Journal weekly, surely you have taken a step that bee-keepers may well feel proud of. I cannot understand how any one can undertake to keep bees without the aid of the Bee Journal. The writings of Mr. G. M. Doolittle in the American Bee Journal for 1880, were of infinitely more value than the year's subscription. In fact each number is a feast of good things to the apiarist. Leonidas Carson.

Frederick, O., Jan. 7, 1881.

Sections.—Will you please advise me through the Bee Journal, which size of sections would be preferable to adopt. I am a new beginner in the bee business, and have not produced any comb honey as yet to speak of, and before making frames, buying sections, etc., I would like the opinion of some one experienced in the business, as to whether bees will store as well in the small 4¼x4¼ sections as in larger ones, and also whether honey in the larger sections will bring as good prices as in the small ones? Will bees store as rapidly where separators are used as where they are not? E. Hunt.

Sheridan, Mich.

[The market shows no preference between 1 and 2 lb. boxes, nor do the bees. Opinion is divided regarding separators being a hindrance, on which question we take negative grounds.—Ed.]

Too cold for anything.—The mercury froze up on January 8th and again last night at 10 p.m., and remained frozen until 6 a.m. to-day. The cold is intense. All business is suspended. The mercury has not been above zero since Christmas; much suffering prevails. I fear it will kill most of the bees here; many are dead now. Mine are still dry and nice being strong and well packed. The weather since Nov. 1, 1880, is the severest known to the oldest inhabitant.

E. A. Morgan.

Arcadia, Wis., Jan. 14, 1881.

Bees in good Condition.—I had a light yield of honey the past season, but I doubled up my colonies and they have plenty of honey to winter on. They are on the summer stands and are at this writing in excellent condition. They have not had a flight since the middle of November. The weather has been steady and very cold. I hope you will make a success of the Weekly Bee Journal for I think that it cannot be published and read too often by the apiarist. Upon the close reading of the good experience of the many, our success greatly depends.

Davis, Mich. Wm. P. Evritt.

Dysentery.—I had 18 colonies last fall most of them well packed in chaff on their summer stands, and with plenty of sealed honey, but as soon as cold weather set in, they began to come out of their hives and die, till about one-fourth of them are dead, and the rest are in a very bad condition. Some left from 10 to 20 lbs. of nice capped honey in the hives. Some of the combs are badly daubed up. Will that honey do to feed other bees in the spring? Or will those daubed combs be injurious to young bees? I think it is dysentery caused by bad honey gathered late in the fall. J. M. Pearson.

Troy, Ohio.

[When the bees can fly in the spring, the honey, even though a little sour, will not injure the bees. The daubed combs will very soon be cleaned up by the bees.—Ed.]

Cold.—It is 26° below zero here this morning, but we think it will not disturb our 136 colonies of bees very much.

Rust Brothers.

Ellicottville, N. Y., Jan. 12, 1681.

Poor Winter for Bees.—The Weekly Bee Journal comes to hand all right. I am well pleased with it contents, and only wish I knew how to get as much information in regard to bee-culture with the same money as I expect to receive from the Weekly in the next 12 months. The past season here was rather poor for bees, but I think they generally went into wtnter-quarters with enough honey to carry them through. The winter so far, has been very severe and bees that are neglected will be lost. I feel very easy about my bees. I have them packed in chaff on their summer stands. I have wintered them in that way for the past 9 years.

John I. Martin.

Falls City, Neb., Jan. 8, 1881.

Superiority of Italians.—Bees done poorly here last seaion. Many will die this winter for want of stores, though mine have plenty to winter on, except a few black colonies. I took about 700 lbs. of comb honey from about 30 colonies; the Italians and hybrids leading the blacks about 75 per cent. Your valuable Journal is read with much interest and profit. W. H. Smith.

Burlington, Iowa, Jan. 10, 1881.

Wants the Weekly.—You will have to change my subscription to the Weekly Journal. I subscribed for the Semi-Monthly but I cannot do without the Weekly. It has been a good Monthly and I have no fear but it will be just as good a Weekly. I wish you success.

Big Springs, Mich. J. Precious.

[We do so, with pleasure, and if there are any others who desire to change to the Weekly, we will with pleasure accomodate them.—Ed.]

Catnip and Jessamine.—These are excellent honey plants in this locality—much better than others I see noticed in the Bee Journal.

Albert E. Foster.

Covington, Ky.

Wintering Well.—I am wintering 72 colonies, they are all right now, except one that is wasting away. I think more than one-half of the bees in this region are dead now. I must have the Weekly Bee Journal. James Harper.

Mason, Mich., Jan. 12, 1881.

Unprotected.—I hear that many bees are already dead where they are unprotected. I am well pleased with the Weekly Bee Journal. Now that we are to have its visits weekly, I think every one should renew their subscriptions promptly and send at least one new subscriber. I will do all I can for it in this region. M. A. Newman.

Collins, Ill., Jan. 13, 1881.

Perishing by the Hundreds.—Bees are not wintering well here; they have been confined so long. They fly out, drop on the snow by the hundreds and perish. They have had no purifying flight since Nov. 5. They worked on various kinds of decaying fruit, and this is the chief cause of the difficulty. Send on the Weekly I cannot afford to lose a single copy. D. W. Fletcher.

Lansingville, N. Y.

Uses the Langstroth Hive.—It has been rather a poor year for honey here in Maine. I had last fall 50 colonies, most of them in Langstroth hives, but some in Root's simplicity, and chaff hives. I put 23 colonies in cellar. I have had the best success there. I have used the Langstroth about 20 years, and I like it the best of any I have used, take it altogether, although I have had as good success in wintering in the American. I have 27 colonies packed in chaff and straw on summer stands to try it.

Lucian French.

Dexter, Me., Jan. 13, 1881.

A Good Showing.—In 1879 I started with 1 Italian and 1 hybrid colonies.—Increased to 6, and wintered in cellar without loss. Next year they increased to 21, by natural swarming, and gave 500 lbs. of red clover comb honey, leaving plenty to winter on.

Taylor, Wis. J. W. Ellison.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR.

CHICAGO, ILL., JAN. 19, 1881.

☞ Dr. N. P. Allen, President of the North American Bee-Keepers' Society, writes:

> "The Weekly BEE JOURNAL cannot be surpassed in its mechanical appearance, as well as the valuable matter it contains. Every bee-keeper ought to subscribe for it."

In Great Britain they have been experiencing the coldest and most severe weather for many years past. It seems that the severity of the weather is general—at least in the Northern hemisphere. In the Autumn (says the London *Mark Lane Express*) storms, floods, frosts, and unsettled weather over the whole United Kingdom seriously delayed wheat sowing.

☞ Notwithstanding the fact that we commenced the year by issuing ten thousand copies of No. 1, the call for samples was so great, and new subscriptions so numerous, that in No. 2 we announced that we could not supply any more of the first number. Since that, we have found it absolutely essential to set the type again and have printed several thousand extra copies, in order to supply our new subscribers with that number to complete their files for the year. In addition to the almost unanimous renewal of the subscribers of last year, we have added over 500 *new* ones during the first half of this month. We knew there was a demand for a weekly bee paper, but had no idea that it was so general and persistent. The Weekly BEE JOURNAL is already established on a firm, paying basis, thanks to its friends and patrons. We fully believe in progression—no backward steps—and shall apply this to the JOURNAL as well as to bees. To this end we now apply ourself with renewed vigor, and hope, by next year, to surprise our friends with still greater and more substantial improvements.

☞ We have accepted an invitation to attend the Ashtabula County, O., Convention, which is to be held at Andover, O., on Tuesday and Wednesday, Feb. 8 and 9, 1881. On the evening of Tuesday, the 8th, we have engaged to deliver a public lecture on "Bees and Honey." There being a large number of bee-keepers in that region, we expect the meeting will be very largely attended. All interested will please notice the date—as it has been changed.

☞ Mr. Wm. Carr, of Newton Heath, England, has issued a pamphlet of 16 pages and cover, on "The Introduction and Early History of Bees and Honey." It is full of interesting matter. We will give copious extracts from it when we can find room in the Weekly BEE JOURNAL. Mr. Carr has our thanks for the compliment of a copy.

☞ The N. E. Wisconsin Convention was held yesterday at Oshkosh. We are sorry the notice came too late for last week's JOURNAL.

Selecting Location for an Apiary.

Last fall the burden of complaint, in many sections, was "scarcity of honey for bees to winter on," and now come reports from nearly every direction, saying "a great many bees will perish here this winter." Of course, the latter state of affairs is to a great extent the direct or indirect result of the former, occasioned by the early approach of winter, and its long continuation without the usual mild intermission, which rendered feeding impracticable with those who "trusted to luck" for an opportunity to feed before this time. In many cases dysentery has developed itself among bees improperly protected—being packed away too warm, or not warm enough, or without sufficient absorbents, and, in some cases, with improper food—their long confinement rendering them peculiarly sensitive to defective preparation.

As a consequence, many bee-keepers will become dissatisfied with their present locations, and will turn their attention elsewhere for "fairer fields and pastures green," with a view to making bee-keeping more reliable, and to retrieve losses sustained during the past two discouraging seasons. To such persons, and those about to embark in bee-keeping as a specialty, a few hints regarding the selection of a location for an apiary may not be out of place.

Be in no hurry about making your decision; or rather, start about it soon enough to allow yourself plenty of time to thoroughly canvass and investigate the different points under consideration. Locate where there is a profusion of white clover, with timber to the west and north, within range, where basswood or linden abounds; golden-rod, asters, Spanish needle and heartsease or smartweed abound in almost every locality, and where they do not, it is easy and profitable to put in a few acres of buckwheat for late fall honey, as there is none better for wintering bees, and extracted buckwheat honey will always find a ready sale.

There are undoubtedly many locations in the country, yet unoccupied by the apiarist, where all the above requisites exist, and so far, nature has amply provided. A broken or low country is no particular disparagement, because the less desirable for cultivation, the more encouragement will there be for you to take time by the forelock, and plant plentifully of such honey plants as will insure a constant bloom, and provide against the time when others, encouraged by your success, shall go into bee-keeping in your neighborhood and overstock the location unless nature is liberally assisted. With all the above natural advantages secured, aided by your provident forethought in planting, you will have done much to settle the question as to the best method of wintering, and your bees, let them be of whatever color, will solve the problem as to which is the best race. We are often almost persuaded, that were more attention devoted to selecting a suitable location and to providing continuous pasturage, there would be less cause for so much talk about procuring the best races of bees; the bees reared 'neath Italia's skies would scarcely repay the expense of importing; no longer would we tread the shining sands of Syria in search of a better type: we could afford to respect the superstitions and avoid the scorching suns of Cyprus, for their bees would gather no more honey than our own; the bees of China would be left undisturbed in the shade of its historic wall; and those in Caucasus would still fly from flower to flower in their own native valleys. What though we possessed a type of bees with the wings of a condor, with tongues as long as was that of Xantippe, and stomachs with a carrying capacity equal to that of Falstaff, of what avail are they if there is no honey to gather—no flowers yielding nectar?

In locating an apiary, avoid the close proximity of laurel thickets, as honey gathered from the laurel is unwholesome, if not really poisonous; avoid the neighborhood of cider mills, and do not locate immediately near a large body of water, as it will confine your bee-range to one direction exclusively. We would not like to advise the selection of a location already well stocked with bees, as it may be possible to over-stock almost any locality, unless some means are adopted to render it improbable. Many things are desirable in making a choice, and several positive disadvantages are to be avoided.

The Beautiful.—Of all mahkind, bee-keepers should admire the beautiful—and we really think they do. Our bees, of the Italian, Cyprian and Albino varieties, are beautiful to look upon, and they sip the nectar from the loveliest flowers, hide it in dainty cells of match-beauty and virgin whiteness. What is there, in all God's Creation, so soul-inspiring as a cultivated garden of Nature's flowers, of variegated hues and heavenly grandeur? None but the unfortunate or despondent can fail to enjoy Nature in her garb of beauty, decked by the beautious hand of Deity. To produce a garden of living gorgeousness we may all aspire, and long enjoy its gratifying results.

These thoughts were awakened upon opening Vick's Floral Guide, which the morning mail brought to our desk. Of the many seed and Plant Catalogues produced by Seedsmen and Nurserymen, that are doing so much to inform the people and beautify and enrich our country, none are so beautiful, and instructive as *Vick's Floral Guide.* Its illustrations are are handsome, and given by the hundred, while its Colored Plate is a gem. This work, although costing but 10 cents, is handsonme enough for a Gift Book, or a place on the parlor table. Published by JAMES VICK, Rochester, N. Y.

Questions.—1. How long can bees be confined to the hive, in cold weather, without any injurious effects?

2. When giving a matured queen-cell to a nucleus that has just started cells of their own, should the cells that are started be cut out?

3. When two or more swarms of black bees cluster together, is it best to hive them together, or divide them; and how could they be divided so as to get the queens? A. G. CASTLE.

[1. If everything is favorable—feed, temperature, etc.—they will stand four months' confinement.

2. It is better to remove them, though not necessary.

3. Unless very heavy, hive them together. To find the queens, shake the cluster on a sheet, and while the bees are scattered, the queens can be easily distinguished and secured.—ED.]

Our Climate Has Changed.

In *Land and Water*, C. M. C. makes the following remarks upon the changes that have taken and are taking place in the American climate:

> Since my early youth this climate has changed. The clearing away of the forests gives unimpeded sweep to northern winds; the leaves do not so long absorb and retain the fallen rains, and the treading of the surface by stock, all make the summer drier. There were then one hundred springs where there is one now. The rills or creeks are gone or soon dry up, and scientific culture has to ward off the effects of drouth. If shallow plowing in the first breaking is made, the rush of the surface water more than ever sweeps the soil. What remains is shallow, and the harsh winds and sun penetrate the roots, and the crop is injured.

Is it any wonder that our bees cannot gather as much honey as formerly, when the forests are swept away by advancing civilization, and the consequent cultivation of the land? This furnishes convincing proof that it now becomes a *duty* for bee-keepers to plant honey-producers, in order to furnish bees with the nectar which they may gather. In this way only can we keep bees in the future with pleasure and profit.

Hints to State Vice Presidents.

During the first three months of the year, the premium lists for County, State and District Fairs are usually made up. The Vice Presidents of the National Society should therefore soon commence their work.

We respectfully suggest that they communicate with the different official Boards of the Agricultural Societies in their respective States, and endeavor to induce them to offer appropriate prizes for BEES and HONEY at the Fairs for the coming season.

The following or something similiar to it would be well to recommend in the line of prizes:

Best package of honey in the comb, one pound or more.

Best package of extracted honey, one pound or more.

Best crate of honey in the comb, in the most marketable shape.

Best display of honey, both comb and extracted.

Best display of bee-keepers' supplies.

Best colony of Italian bees.

Best exhibition with a colony of bees, in a movable-frame hive, including their public manipulation.

Best show of beeswax.

Best bee-hive for all purposes.

☞ Those who have subscribed for the Monthly or Semi-monthly, and may want to change for the Weekly, can do so at any time by paying the difference.

As Others See us.

> Friend Newman, of the BEE JOURNAL, published at Chicago, has made a new step in journalism, which marks also the rapid advance in the bee industry of this country. The BEE JOURNAL which has for twenty years been published as a monthly, appears with its initial number for the new year as an 8-page weekly. We welcome this evidence of the healthy growth of the apiary and the enterprise of the veteran editor. The JOURNAL stands at the head of bee periodicals of this country, which includes that of the world, for America leads the world in the science and industry of apiculture. The JOURNAL is among our most welcome exchanges.—*Kansas Farmer.*

AMONG OUR EXCHANGES.

BRITISH BEE JOURNAL.

☞ The editor, Mr. Abbott, speaking of the late large importation of American honey in the comb, and that it produced quite a "scare" among English apiarists, says:

> We must not, however, attempt to deny that the great import of American honey was a surprise, nor that it frightened many; nor will we pretend that its preparation did not exhibit a superior knowledge of the means of cultivating the bee to that which had been previously shown in this country, but we are glad to say that instead of producing general or permanent alarm, it acted as a stimulus.

Bee Education.—On this subject the editor remarks as follows:

> The endeavor to establish a professorship under government has, unfortunately, not been quite successful; but great interest has been aroused, and there is reason to hope that in the ensuing year the application will be favorably received, when bee-culture becoming a branch of national education, the cobwebs of ignorance and superstition will be swept out of the apiary, and England will cease to be a laughing-stock among Continental bee-keepers.

Undiscovered Truths.—Comparing all that is known about bees with the yet unknown, Mr. Abbott says:

> Turning now to the future, we cannot pretend to unveil what is hidden, we are told by Dr. Dzierzon, one of the greatest Continental bee-masters, that the little we know of bees is but as the sand on the shore in comparison with the treasures of the ocean; and we can scarcely hope that the waves of a year, or even a lifetime, will reveal them; but gradually they will be brought to light; step by step, one by one, the secrets of nature are unraveled, and the mind of man bounds with delight as the beauty of the glorious fitness of things, and the mutuality of their relations are discovered.

Queen Excluders.—Upon this subject the editor remarks thus:

> Zinc with round-holed perforations was first brought into public notice for queen-excluding purposes by Mr. Obed Poole, of Uphill, Weston-super-Mare, in 1875; and a letter of his will be found on page 75 of the *British Bee Journal* for that year, in which he stated that he had used it for some years. Mr. Poole also said, another good feature in the zinc is, I believe, that it is almost impossible for a bee to get through with a load of pollen; and this fact is an important one as distinguishing the round-holed zinc from the long-holed of later introduction. The zinc used by Mr. Poole had 3-16-inch perforations, but after considerable experience it was found to be a little too large; and on the recommendation of Mr. Cowan, that having 5-24 came generally into use; and it was with this kind we covered our new-idea frame of 1877, a full description of which was given in the *Journal*, page 62, of that year, and which Mr. D. A. Jones, of Ontario, is now introducing into America. Subsequent to that date, and through correspondence and personal contact with Colonel Pearson, of Nancy, France,—who will ever be remembeped in connexion with improved bee-culture both there and here—we were made aware that the late venerable Abbe Collin had been for years using sheet-iron with oblong holes in it for excluding purposes, and having obtained samples, presently succeeded in obtaing the correct thing in zinc, as it is now largely used in all English apiaries. The round-hole perforation admits the body of a worker, but gives it a scraping squeeze all round thereby effectually prevention the passage of pollen. The Abbe Collin had abandoned the round-hole on this very account, and adopted the long but narrower hole through which a bee queen cannot pass her thorax, while a worker can easily pass through with very slight pressure, and with no hindrance to her pollen-carrying.

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BEE-KEEPERS' EXCHANGE.

First Importer.—Mr. C. J. Robinson says that "Mr. J. B. Parsons was not the first to import Italians into this country. Mr. Mahan, of Philadeldhia, Pa., was the first. He had charge of the Government and Mr. Parsons' bees while on their passage across the Atlantic. I mailed the first queen bee that went through the mails. It went to Rev. Langstroth who had the Parsons stock of bees."

Adulteration.—On this subject Mr. Nellis, the editor, has the following observations:

> It is highly important that bee-keepers consolidate their efforts against the wholesale adulteration of sweets, which adulteration is very injurious to public health, and to the legitimate production of wholesale sweets.
>
> The *Exchange* from its first numbers until now, has put forth its efforts in the development of the honey market, and towards the suppression of the miserable adulterations that are now allowed to boast their abilty to deceive the ignorant consuming public. The interests of producers and consumers can thus be promulgated in the same journal, and to this end the *Exchange* will bend its energies in the future.

We are glad to find Mr. Nellis on the right side of this question—but would prefer *not* to see the advertisement for glucose on the cover of the same paper. It is best not to touch or handle the filthy fraud.

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BEE-KEEPER.

☞ As usual, this is filled with personal abuse; this time it is Prof. Cook who receives a good share of attention, but no disclaimer from him is necessary to persuade his acquaintances that he never used the language therein attributed to him. That the writer of the article was so informed we do not doubt, but more is required than the mere assertion (or even affidavit) of his informant, to convince any one that Prof. Cook made use of such an expression.

The paper is so badly printed as to be a disgrace to the art of printing, and with its persistently-repeated slanders and misrepresentations, it is a libel on the journalism of the world.

A writer in an exchange thus forcibly expresses his noble thoughts:

> "A noble-minded person will never resent the omissions of others, or falsely construe their motives. The brave only know how to forgive, and, as far as possible, to forget, real or imagined injuries; but the coward never forgives; he waits in ambush for an opportunity to strike in the dark or stab in the back. Small minds are hurt by small events; but great minds see through and despise them. True self-respect is always full of respect toward others, and wastes no thought on petty grievances."

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LONDON JOURNAL OF HORT.

The Honey Harvest.—The accounts which are coming in from various parts of the country giving reports of the honey harvest are various. In some counties hardly any honey seems to have been taken. The midland counties seem to have suffered worst in every way, owing to the deluges of rain following upon the constantly recurring thunderstorms of June and July.—Of course this weather must have been as disastrous to bees as to the farmer in respect of his corn and hay crops.

The result of the year's bee-keeping above given, surely teaches the lesson *Nil desperandum*, and should encourage all to take the utmost pains and to spare no expense in feeding up their stocks of bees in good time during the warm days and nights of mid-autumn. Instead of all dying during the winter, as they certainly would have done, and left me in beggary as an apiarist, my colonies of bees now number 12 all in good health and full of promise, worth at least 30*s*. apiece, in all £18, and the profit of the year £13 additional, so that I am fully £31 better of than I should have been if I had despaired or neglected my bees as did so many of my hapless neighbors.

Straw Hive Controversy.—In England they are having a discussion on the advantages of bar-frame hives, as compared with the old straw skep. Mr. Pettigrew is the champion of the latter and has thrown out a challenge to the bar-frame hive men to show results. Several of the latter are after him with facts and figures. Mr. Wm. Mann, who has been converted from the straw skep method, remarks as follows:

> I do not keep a record of every hive, but I did of one this year. It gave me 122 lbs. of comb honey in 1-lb. sections, 30 lbs. extracted honey, and has over 40 lbs. left to winter on; yet I consider this has been a poor honey season. I sold the honey taken from this hive for £9 11s., and have my colony left to me well supplied.

Mr. James Anderson, of Scotland, says:

> Your correspondent has a good right to praise his own system, but with your permission I will give one instance that came under my own observation of the benefits of the Stewarton system in Arran this most productive season. From one colony James Crawford, a mason, obtained the following results: Old colony, 140 lbs.; first swarm, 187 lbs.; second swarm, 154 lbs.; total 481 lbs.

It seems very strange to us that in this age of enlightenment, any one (and especially Mr. Pettigrew), could be found to champion that old-fogy system of past ages. It is true, with good management and careful study, good results can be obtained from almost any hive in existence; and in this Mr. P. seems to rely for his supposed superiority of the straw hive. He is a careful and enthusiastic bee-keeper, and would have good results with any hive.

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BEE-KEEPERS' INSTRUCTOR.

We are glad to see the improved appearance of the *Instructor*. It makes a very creditable appearance typographically, and is full of good matter.

Selling Extracted Honey.—J. H. Martin thus describes his new plan for selling small quantities of extracted honey:

> Provide yourself with a tray, or several of them; you can make them of wood, but they are better made of tin. Make the tray three inches deep, and two by three feet. Warm up your candied honey, so you can mash it into a homogeneous mass, and fill your tray. Now have several thin strips of wood, or tin, three inches wide, and insert in the honey so as to cut the honey into cubes of 2¾x2¾, and set your tray away in a cool place. It will soon candy solid, and you can then separate your cubes and you will have just a pound in each cube. In like manner you can make cubes of honey weighing three and five pounds.
>
> Now place a neatly made glass case in your nearest store and expose this honey for sale. Provide clean paper to wrap the chunks in or provide small paper pails.

Shipping Queens.—Mrs. L. Harrison gives her experience as follows:

> Last season desiring to ship some queens by mail, we procured "Harris' provisioned mail and introducing cage." We forwarded a queen in one of these cages to Kansas, and in due time received notice that the queen and her attendants were dead, on arrival. We immediately mailed another one, in the Harris cage. Before doing so, however, we poured water into the cage until the provision was somewhat moistened, and also put in a sponge saturated with honey. This time the queen made the journey in safety. These cages are well made, and we consider the introducing part alone, worth all that we paid for them. We would like to have others "tell their expereience" with provisioned mailing cages without any honey or water.

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Cook's Manual of the Apiary.

Nature, the most noted scientific journal in the world, is published in London, England. It has a long notice of the above named work, from which reprint the following extracts:

> "Prof. Cook's work differs from English works on the subject, in its combination of science with utilitarianism, while the amateur, pure and simple, is hardly recoginized at all.
>
> "More than one-third of the book is devoted to an account of the natural history of the bee, its place in the animal kingdom, its anatomy, physiology, habits and economy. Then follows the chapters on bee-keeping proper; and the author here addresses himself almost exclusively to those who make bee keeping a business, and we are led to understand how much this branch of industry is advancing in America, where honey is now produced on almost as large a scale as corn.
>
> "Prof. Cook has a chapter on 'marketing honey,' 'tempting the consumer' and other mercantile details, and throughout the book we find constant indications that bee-keeping is looked upon as a business rather than a hobby and that, in all its details, economy of labor, and materials must be studied, and all processes judged by the test of the maximum of cost.
>
> "An interesting chapter is devoted to 'honey plants,' the principal species from which the bees obtain their honey in America being 'figured.'
>
> "The English bee-keeper will no doubt obtain many useful hints from this excellent Manual of Bee-Culture, as practiced by our ingenious and energetic cousins across the Atlantic."

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☞ An old subscriber asks: "If I subscribe for the Monthly, shall I get all the matter contained in the Weekly, in a condensed form?" No; subscribers for the Monthly will receive the first weekly number (*like this*) published on the first Wednesday of each month, and will miss the next three numbers. Semi-monthly subscribers will receive the first and third weekly of each month (missing the second and fourth). Subscribers for the Weekly only will get all the reading matter. We advise all to take the Weekly who are keeping bees; it will pay them to do so. Any one who has subscribed for the Monthly or Semi-monthly, can change to the Weekly upon paying the difference.

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☞ Please examine the date after your name on the wrapper label of this JOURNAL and see that proper credit is given. Such is often a sufficient receipt, now that the JOURNAL comes weekly. In the great rush of the past week or two, some mistake may have occurred which we shall be most happy to correct if our attention is called to it.

CONVENTION NOTES

Read before the Michigan State Convention.

Honey and its Adulteration.

J. P. H. BROWN.

I shall not task your patience by any discussion of the mere physical characteristics of honey. You are all familiar with its history; but with its chemical composition there may be less familiarity.

Honey as secreted by the flowers, and when in its liquid state, has the same chemical formula of elements as *fructose* or fruit-sugar, an uncrystilizable saccharine substance abounding in grapes, figs and other fruit. It also contains some coloring matter, a trace of formic acid, gum, and a little mannite or manna-sugar.

After honey passes into the candied form and assimilates some of the elements of water, its chemical formula becomes similar to glucose which is also a saccharine product of fruits. The formula of glucose as given by Brand and Taylor, very eminent chemical authority, is $C^{12} H^{14} O^{14}$, which may be read 12 atoms of Carbon and 14 atoms each of Hydrogen and Oxygen.

From the fact that there is a similarity in the formula of honey and glucose, it is urged by the advocates of honey adulteration that glucose has substantially the same physical properties as honey, and the same degree of wholesomeness as food for the human organism. This is incorrect reasoning. The premises are false.

In organic chemistry there are many substances that possess the same number of atoms of the same elements, and yet their properties are most dissimilar. For instance, the oils of turpentine, lemon, bergamot, cloves and thyme are represented by the same formula, and yet their physical and chemical properties are entirely different. On this subject Brand and Taylor, the authorities previously referred too, observe: "When two compounds can be proved to be formed of the same elements in the same proportions by weight, it would appear to be a reasonable inference that their properties should be identical, but chemistry teaches us that this condition may exist and yet the substances be wholly different in chemical and physical properties. The fact is, the properties of the substance depend not only on the nature of the elements, and the number of atoms of each, but on the mode in which these elements are grouped or arranged. Gum, starch and sugar are isomeric, or are constituted of a like number of atoms of the same elements, and the difference in their properties can therefore only be ascribed to a difference of arrangement among these atoms."

Glucose, instead of being a natural product like honey, distilled in God's own laboratory in the flower, is a vile chemical preparation possessing properties entirely different from honey, and ruinous to the health of its consumers. It is usually produced in this country by boiling starch in dilute acids. Sulphuric acid plays the most conspicuous part, but muriatic and nitric acids enter also in its manufacture. A bushel of corn weighing 56 pounds will produce some 30 pounds of glucose, and the profits on a bushel is from 30 to 40 cents. Some glucose factories consume over 6,000 bushels of corn every day. This at a profit of 35 cents per bushel would amount in the neighborhood of a million dollars profit per annum.

It is now used in enormous quantities for the purpose of adulteration and fraud in sugars, syrups and honey. Fully one-fourth of all the common grades of sugar consists of glucose. This accounts for the fact that the sweetening properties of our present sugars are much inferior to those used before the use of glucose. Two parts of cane sugar contain as much sweet as five parts of glucose.

Our present syrups, unless genuine plantation, are manufactured nearly wholly from glucose. Your "honey syrup," your "maple drip" and "rock candy drip" are all glucose frauds. A short time ago I saw a lot of nice glass jars in a large confectionary house in Augusta, Ga., containing a small piece of comb honey bathed in a clear syrup. On taking one up, I read: "Thurber's Best Honey;" a little farther on, I read: "In order to prevent the honey from granulating it has been satuated with *corn syrup.*" Glucose! "Corn syrup"!! the d——, by a mild, euphonious name!!

There is no doubt but this nefarious practice of adulterating the food we eat, is daily on the increase. With this adulteration, there is the notorious fact, that dyspepsia, derangement of the liver, and disease of the kidneys, are also increasing among the consumers of the trash that is sold for genuine.

If the adulteration of honey is allowed to go on without restriction, it will ultimately destroy the entire honey producing interests. It is somewhat of a problem, how can this trafic in fraud be restrained? Some advocate missionary work—warn the people against the use of fraudulent food, and point out to them the dire consequences attending its consumption. All this may be very well, and do much good. "Moral suasion" and *earnest* prayer are powerful; but there are cases where, I believe, it is necessary to use both prayer and *earnest* blows in order to make an impression. The love of sordid gain is so dominant that men will adulterate—commit fraud, cheat and swindle—counterfeit the food we eat, and thereby deal out solid and liquid death to their fellows for dollars and cents. These cases are to be met by statutory laws rigorously enforced.

I am satisfied that petitions to the United States Congress will not avail. The work must be done by State legislation. Adulteration is fraud. To sell adulterated food is cheating and swindling. The penalty must be for fraud, cheating and swindling. New Jersey has some such law. Other states must do likewise. When petitions fail it must be made a political isssue, and must be fought at the ballot box. It is to be hoped that your Society will take the initiative, and set the ball in motion in your State.

Augusta, Ga,

Read before the Michigan State Convention.

About Poisonous Honey.

PROF. A. J. COOK.

To some of you it may seem unwise and impolitic to admit that honey is ever anything but nutritious and wholesome. But others, of whom our worthy brother Heddon is chief, think that the whole truth concerning our vocation should be told, even though the bitter is mingled with the sweet. But the facts to which I wish to call attention to-day are so exceptional that I think no one need fear the revelation.

The subject in question may, I think, be considered under two heads: 1st, honey poisonous because of the individual peculiarity of the eater. In this case the honey has no markedly deleterious qualities, for all honey affects these individuals alike; 2d, honey which has absoutely poisonous quality, so that whoever eats becomes a victim to the noxious elements contained in the honey.

I presume that everyone present has known some person who could never eat honey, without serious inconvenience. My own farther is such an one. Indeed, he is so suscepttible that all honey, even in homeopathic quantities, induces severe colic, attended with terribly griping pains. That this effect was due to his individual peculiarities, and not to the special honey, is evident from the fact that all honey affects him in the same way; and further, honey which would cause him severe distress could be eaten by any of the other members of our family with perfect impunity.

That this poisoning should be due to some constitutional idiosyncrasy is not hard to believe, for analogous facts are by no means uncommon. I myself am unable to eat cooked tomatoes without discomfort. Says Chas. Dadant: "I cannot drink milk without suffering from colic." The following from the AMERICAN BEE JOURNAL, vol. 2, p. 231, is to the point: "Everyone is aware that certain persons have peculiarities about themselves which render them very susceptible to morbid impressions from causes which, on others, have no effect whatever.

"Physicians tell us that certain persons are very susceptible to the action of all mercurial preparations, one or two grains of calomel producing severe salivation, while others can take 20 or 30 grains without being in the least salivated. Some persons cannot eat cucumbers, nor sit at the table where they are served. Certain persons are afflicted with nettle rash (Urticaria) whenever they eat pork. Some persons are seized with a fit of asthma the moment a particle of the root called ipecacuanha is brought in contact with their bodies." At our Michigan Agricultural College our students have been called to work in a swamp which abounds in poison sumach (*Rhus venenata*). Many can handle this terrible shrub without the least inconvenience, while others can hardly come in sight of it without becoming victims to the most intolerable pain and suffering, which sometimes persists for years. We conclude, then, that such cases of honey poisoning as are now under discussion are due wholly to the individual, and not to the honey.

Mr. Langstroth (see AMERICAN BEE JOURNAL, vol. 6, p. 221) and Mr. J. M. Marvin, in the same JOURNAL vol. 2, p. 188) claim that the cause of such colic is bee-sting poison, which is ejected from the sting of the bees, and lodged in the honey. It seems to me that this view is untenable: 1, all honey contains the liquid secreted by the poison glands; 2, it is generally true that animal venom, like that of poisonous snakes, is harmless if taken into the alimentary canal. It is not probable that bee venom is an exception. The more probable explanation is this: that all, or nearly all flower nectar contains some element that acts as a poison when taken into the stomach of certain persons. Whatever this element may be, it seems to be expelled, or converted into some harmless compound, by heat and by granulation. My father can eat honey that has candied with no difficulty, while the same honey, eaten before crystallization, caused him great distress. Heating the honey seems to work the same effect. I do not know whether it is necessary to boil the honey or not. If so, the quality of the honey would be injured. Mr. Chas. Dadant suggests that any one can overcome this unwelcome peculiarity by commencing to eat a very small quantity and continually increasing. In this way the body becomes able to resist all evil effects, and the person may soon safely eat all that he craves. When we see how foolish men become able to take such poisons as tobacco and whisky *ad libitum*, if not *ad infinitum*, we can easily believe that Mr. Dadant is right. I have heard it asserted that fresh milk, if drank immediately after the honey is eaten, is a sure preventive of all attendant ills.

Our second point, that some honey is absolutely poisonous, so that all who eat will suffer, is well established.

Xenophon, in his account of the retreat of the ten thousand, as recorded in the Anabasis, recounts the fact that the soldiers sucked some honey combs near Trebizonde, where there were a great number of bee hives, and in consequence were attacked with vomiting and purging. So many were overcome that the ground was so strewed with their bodies as to resemble a field after a great battle. He states that none were lost, but that those who ate were unconscious for 24 hours, and did not regain their strength for three or four days. Tournifort, when traveling in Asia, investigated this matter, and concluded that the honey was gathered from the Rhododendron Ponticum, or the Azalea Pontica. Father Lamberti states that these shrubs are common about Colchis and that the honey at that place often produces effects similiar to those described by Xenophon. Dr. Darwin says that the honey from some plants is poisonous to man. Dr. Barton, of Philadelphia, in a paper published in the American Philosphical Transactions, says that in 1790 the honey collected near Philadelphia was fatal to many. Thorough inquiry, instituted by the government, determined that the source of this poisonous nectar was the Kalmia latifolia or mountain laurel. Bevan records the fact that two persons at New York died from the effect of eating honey gathered from the drawf laurel (Kalmia augustifolia).

Dr. Barton states that Kalmia hirsuta, Rhododendron maximum, or great laurel, Azalea nudiflora, Andromeda mariana, and the Datura Stramonium all produce honey that is poisonous both to dogs and to the human species. The symptoms, as given by Dr. Barton, are dimness of sight, vertigo, delirium, pain in the stomach and bowels, convulsions, profuse perspiration, foaming at the mouth, vomiting, purging, and in some instances temporary paralysis, but very seldom death. Similar cases to those already narrated are detailed in the New Jersey Medical Reporter for November, 1852.

J. Hammer, M. D., of Halifax Court House, Va., a physician in the confederate army, recounts, in *Gleanings*, vol. 3, p. 17, his own experience and that of several others, which agree almost entirely with what I have already given from Xenophon and Dr. Barton. He states that the honey was gathered from the mountain laurel, which grew in the Shenandoah valley, Virginia.

About the middle of last October I received a letter from Mr. C., who lives in a neighboring state, in which it was stated that some honey sent by Mr. C. to some friends in New York city had produced serious sickness. All who ate of it noticed that there was a sharp taste like that of cayenne pepper and that it produced coughing upon touching the throat. Suspicion being aroused as to its wholesome character, all but two present at the table refused to eat, though two children took one or two mouthfuls. The two who ate heartily, to quote: "Soon complained of nausea, vomited terribly, while their extremities became cold. They soon were unable to see. The children who tasted but little of the honey were troubled in the same way, but not so badly. A doctor was called at once, who gave an emetic and then whisky. Soon all were well again. The pulse of the one who was troubled worst was for a time only 38 per minute. The doctor tasted of the honey, and was sick all night.

I sent to Mr. C. for some of the honey which he kindly sent to me. The comb honey is light colored, while some extracted honey which he sent, which is less poisonous, if at all so, is dark. Mr. C. says that all the honey which creates the smarting sensation in the mouth and induces the coughing, was certainly gathered before July 10th. These characteristics are so marked, that Mr. C. could, by simply tasting, select the honey that had the deleterious qualities. Mr. C. does not know from what plants the honey was gathered.

I find that the honey received from Mr. C. has one other quality not mentioned above, it is bitter, so much so as to be decidedly unpleasant to my taste. I thought to try the effect of heat upon it, and so heated some of it till it boiled. I kept tasting of it during the time of heating, and also tasted of it after it had boiled. I could see no difference in the taste. Even after boiling for some minutes, it still was peppery and bitter. As my good wife objected decidedly to my eating it, I cannot, unfortunately, state whether the poison properties escaped with the heating or not, but the probabilites, I think, are that they did not.

I cannot offer any very practical suggestions, I regret to say, on this subject. It would be interesting for Mr. C. to determine whether any of the species of Kalmia, Rhododendron, and Azalea, mentioned above, abound in his locality. Any good botanist of the region could inform him as to this point. The time of their blooming, as they all bloom in June, I think, together with the fact that they exist in a line south of him, in the states of New Jersey, Pennsylvania and Virginia, makes the inquiry all the more desirable.

Again, according to nearly all accounts—there is a little adverse testimony, it is true, but it is probably unreliable—this honey is entirely wholesome to the bees. If this be true, the honey may be fed to the bees in spring, and so not be lost. I should not fear to try this experiment of feeding it out, if I had any of this honey, but from its bitter taste I should deem it safer to try it in spring than in winter, though I presume it is a safe food at any season.

From the fact that we only hear of this poisonous honey semi-occasionally, even in those regions where these noxious plants exist, is it not more than probable that these plants are not favorites with the bees, and so are not visited by the latter in quest of nectar, except in occassionally dry seasons, like the past summer in the eastern and middle states? It is quiet possible that these harmful plants have the power to resist drouth, like borage and catnip, and so furnish nectar, when the bees are unable to get it elsewhere, and we know bees will accept even glucose, if they can get nothing else. I have sufficient faith in this hypothesis so that I would encourage any present or future sufferers to try again, in the hope that the long road which never turns was not the one traveled by their experience. I would also urge such person to ascertain whether the noxious plants named above are in their neighborhoods. Let all who live in the region where these laurels and their allies grow, carefully watch them, and note whether they are usually frequented by bees, and whether they do not secrete nectar in dry seasons when most other plants fail.

* * *

☞ The Northeastern Bee-keepers' Association will hold their Eleventh Annual Convention, in the Common Council chamber, at Utica, N. Y., on the 2d, 3d and 4th days of February, 1881. The Executive Committee are determined to maintain the high standing the Association has justly gained in the past, and propose to out-do all former efforts at the coming Convention. Essays or addresses are expected from Capt. W. F. Williams; Prof. J. Hasbrouck; Mrs. Frances Dunham; James Heddon; Chas. Dadant; H. A. Burch; Jno. Y. Detwiler; C. P. Dadant; A. G. Thurber; W. A. House; A. J. King; Julius Hoffman and others.

A gold medal will be awarded for best essays, on the following subjects: "The different races of bees and their crosses," "Wintering bees," "Marketing honey," "How can we make the apiary the most profitable?"

For best essay upon any subject outside of those mentioned, one tested Cyprian queen, donated by L. C. Root.

Diplomas will be awarded for best display of implements; the best comb foundation for brood-chamber; for surplus boxes; best honey extractor; best bee smoker; for the most practical bee hive.

One dollar each, for the best crate of honey in the most marketable shape, and for the best package of extracted honey.

For the neatest and best honey crate and section boxes (cost, quality and finish to be considered), one tested Italian queen, donated by Geo. W. House.

All are invited to send implements for competition or exhibition. Articles sent to the Secretary will be sold or otherwise disposed of as the owner may direct. It is desired that all articles sent be the same as kept in stock, or forwarded to purchasers

GEO. W. HOUSE, *Sec.* L. C. ROOT, *Pres.*

* * *

☞ The Nebraska Bee-Keepers' Association will hold their Annual Convention, on the 10th and 11th of February, 1881, at Plattsmouth, Cass Co., Neb. Western Iowa bee-keepers are cordially invited to attend.

HIRAM CRAIG, *Pres.*

* * *

☞ The Rock River Valley Bee-Keepers' Association will hold their annual meeting at Monroe, Ogle county, Ill., on Feb. 8, 1881. The weather was such that our Secretary was not at our last meeting and our Secretary *pro tem* having failed to send in his report, I send the above notice. A. RICE, *Pres.*

* * *

☞ The annual meeting of the Southern Michigan Bee-Keepers' Association will be held in Battle Creek, Mich., on Wednesday, Feb. 9, 1881, at 10 o'clock a. m. B. SALISBURY, *Sec.*

* * *

☞ The Champlain Valley, Vermont, Bee-Keepers' Association will hold its annual meeting in Brandon, Vt., on Thursday and Friday, Jan. 20 and 21, 1881. H. L. LEONARD, *Asst. Sec.*

* * *

☞ Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
Bee-Keepers' Magazine (A.J.King)	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T.G.Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

* * *

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HONEY.—Light comb honey held at 18@20c. in 1 and 2 lb. sections; in larger packages, 15@16c.; dark, 12@14c. Extracted, 9@10c.

BEESWAX.—Choice yellow, 20@24c; darker, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 18@20c.; fair do., 15@16c.; dark do., 11@13; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 80@85c.

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HONEY.—The market for extracted clover honey is very good, and in demand at 10c. for the best, and 7@8c. for basswood and dark honey. The supply of comb honey is good, with a fair demand. We pay 16c. for the best.

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Your new Weekly is at hand; it is cleanly printed and full of interesting bee-reading matter. Our market is unchanged from last quotations and quiet, as there are no buyers for European account at present.

HONEY—Comb honey, 12@14c. Extracted, choice white, 7@7½c.; off-colors, 6@7c.

BEESWAX—22@24c., as to color.

STEARNS & SMITH, 423 Front Street.

January 7, 1881.

* * *

Local Convention Directory.

1881. *Time and Place of Meeting.*

Jan. 11—N. W. Ill. and S. W. Wis., at Freeport, Ill.
13, 14—Indiana State, at Indianapolis, Ind.
18—Northeastern Wisconsin, at Oshkosh, Wis.
Feb. 2—Northeastern, at Utica, N. Y.
8, 9—Ashtabula Co., O., at Andover O.
W. D. Howells, Sec., Jefferson, O.
April 5—Central Kentucky, at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

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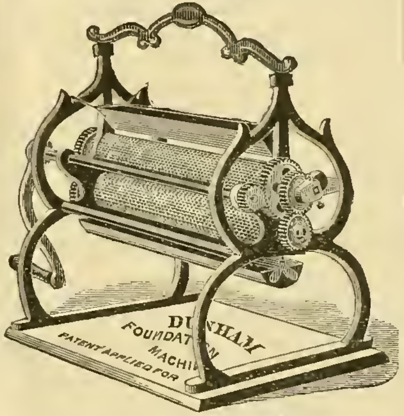

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Cook's Manual of the Apiary.—Entirely re-written, greatly enlarged and elegantly illustrated, and is fully up with the times on every conceivable subject that interests the apiarist. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, **$1.25**; paper covers, **$1.00,** postpaid. Per dozen, by express, cloth, $12.; paper, $9.50.

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Novice's A B C of Bee-Culture, by A. I. Root. This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, **$1.25;** paper, **$1.00.**

King's Bee-Keepers' Text-Book, by A. J. King.—This edition is revised and brought down to the present time. Cloth, **$1.00;** paper, **75c.**

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Bees and their Management. This pamphlet was issued by the Italian Bee Company, and has had a large circulation. The price has been reduced from 20 cents to **10 cents.**

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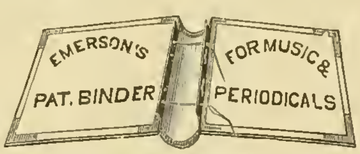

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SPECIAL NOTICES.

☞ Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

☞ When changing a postoffice address, mention the *old* address as well as the new one.

☞ We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

☞ Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

☞ Any one desiring to get a copy of the Constitution and By-Laws of the National Society, can do so by sending a stamp to this office to pay postage. If they desire to become members, a fee of $1.00 should accompany it, and the name will be duly recorded. This notice is given at the request of the Executive Committee.

☞ We will send sample copies to any who feel disposed to make up clubs for 1881. There are persons keeping bees in every neighborhood who would be benefitted by reading the JOURNAL, and by using a little of the personal influence possessed by almost every one, a club can be gotten up in every neighborhood in America. Farmers have had large crops, high prices, and a good demand for all the products of the farm, therefore can well afford to add the BEE JOURNAL to their list of papers for 1881.

We have concluded to make the following offers for all clubs sent in before Jan. 31: For a club of 2, *weekly*, we will present a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

* * *

☞ By the Greeley, Colorado, *Tribune*, we notice that Mr. W. L. Porter, late of Michigan, has arrived in Colorado with a car-load of hives of bees and honey. He has purchased a 5-acre lot near the city, and intends to start an apiary there in the spring.

* * *

☞ The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

* * *

☞ Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Saturday of the week previous.

* * *

Wanted—A copy of the pamphlet containing the minutes of the Cleveland Convention of Bee-Keepers, held in 1871. Any one having it to spare, will oblige by sending it to this office.

WANTED—A situation in an Apiary by a man of experience; understands carpentry. For particulars, etc., address APIARIAN, this office.

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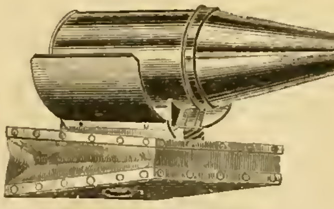

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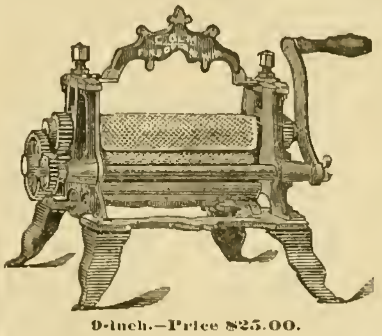

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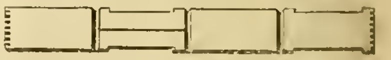
SECTIONS AND HIVES.



We have concluded to extend the time another month. We will make the "Boss" Sections, during the month of January, any size desired up to 5x6, for $5.00. Material for Langstroth hive, 50c.
JAMES FORNCROOK & CO.
Watertown, Wis., Dec. 16, 1880. 1wtf

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FOR 1881.
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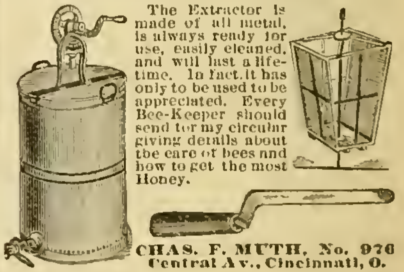

The Extractor is made of all metal, is always ready for use, easily cleaned, and will last a lifetime. In fact, it has only to be used to be appreciated. Every Bee-Keeper should send for my circular giving details about the care of bees and how to get the most Honey.
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THE AMERICAN BEE JOURNAL

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., JANUARY 26, 1881. No. 4.

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Published every Wednesday, by

THOMAS G. NEWMAN,

EDITOR AND PROPRIETOR,

974 WEST MADISON ST., CHICAGO, ILL.

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CORRESPONDENCE.

For the American Bee Journal.

Over-stocking and Planting for Honey.

C. H. DIBBERN.

The present season has been one of discouragement to many bee-keepers, in this section. It has required a good deal of "love for the business" to pay any attention to the bees at all, all through, what should be our honey harvest. All though I did a good deal of feeding, yet swarms would issue every few days for want of stores. Basswood gave us the first promise of comb honey, but as nearly every cell in the main hives were empty, they stored but little. After basswood there was great drouth, and the apiary was about as quiet as a graveyard. About the middle of Aug. the bees commenced on buckwheat and the fall blossoms, and did very well, but as their stores had become very light, it took about all they gathered to put them in fair condition for winter.

Mr. Dadant mentions hauling bees to the Mississippi river bottoms that had been overflowed, with good results. Here these bottoms were nearly as bare as the streets of a city.

Is there not a lesson in the past year's experience that every intelligent bee-keeper should heed? I am glad to notice that "over-stocking" and "planting for honey" is attracting attention in the BEE JOURNAL. Over-stocking is a greater evil than most of our friends suppose. "A" has but 300 colonies and thinks his location "not over-stocked:" but there are from 100 to 200 more within 1½ miles in all dieection. Would he not be better off, as far as his bees are concerned, if he had these 700 or 800 colonies all in his own yard? Then they would all have an equal show, which they have not now.

Most of us have seen tract after tract of our choicest "bee range" fenced and plowed up and devoted to potatoes and other crops of no value to the bees.

In many localities bees have increased from a few colonies to hundreds, while the pasturage has greatly decreased. There is no other branch of business, that depends entirely on a volunteer crop. Now over-stocking will not remain "an imaginary evil" unless there is some kind of proportion between bees and the honey sources in any locality.

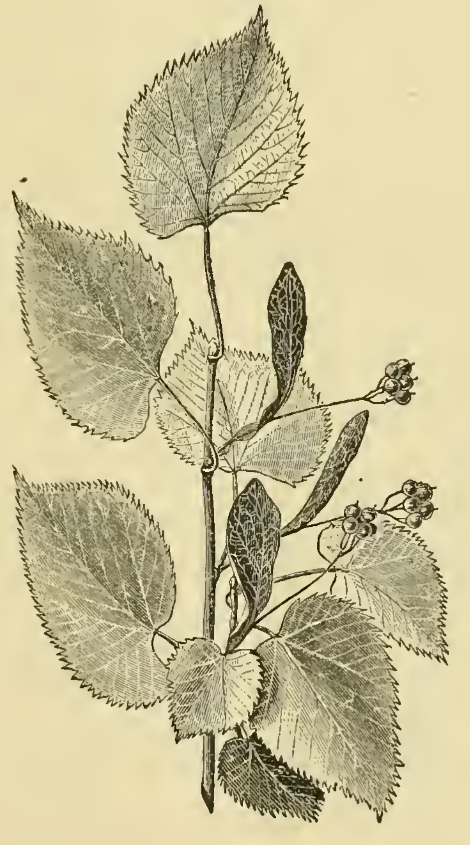
Why is it that so many think it does not pay to plant for honey? The trouble is that bee-keepers lack that confidence in their business so necessary to success. I have known patches to be sown "for the bees" 10x20 feet, and because honey did not flow into the boxes the long summer through, the owner concluded it did not pay.

I have experimented a good deal with honey plants during the last 15 years and think melilot clover is the *king of all*.

Now if bee-keepers would plant say one-quarter as many acres as they have colonies of bees I think they would be astonished at the result. But we are apt to think too much of the number of bushels of potatoes or corn that these acres would produce, to ever give it a fair trial.

It is my opinion that the "bee-keeper of the future" will have unbounded confidence in his business, and will look as closely to the number of acres of honey-producing plants as to the kind of hives, bees and sections.

Milan, Ill., Dec. 5, 1880.



The far-famed Honey-Producer—Basswood or Linden.

For the American Bee Journal.

Apiculture—What is it?

C. B. WOODMAN.

Upon this subject I shall write wholly from experience. I had, for a long time, contemplated the manipulation of bees and the production of honey, but to accomplish this desire was a "trick" or science I knew nothing about. I determined, however, to make an attempt, I purchased two colonies of Italian bees in Langstroth hives, next procured specimen copies of all the bee papers for inspection and my consideration; I finally settled down on the reliable AMERICAN BEE JOURNAL, and with the perusal of other prominent works on the subject, such as Root's "A B C," Langstroth's "Honey and Honey Bee" and Quinby's "New Bee-Keeping." I found the trick no trick at all.

I am highly pleased with the pursuit, and would not despair under any provacation. I use the standard Langstroth hive and winter in the cellar, with success. I think any one contemplating going into the business of apiculture would be pleased with it and will surely succeed if they have a love for the calling, and start as I did. I heartily recommend Quinby's "New Bee-Keeping" for the beginner, and under its teachings failure would be almost impossible. A Monthly, or Weekly bee-paper is another of the indispensables, pertaining to successful apiculture.

Johnson's Creek.

For the American Bee Journal.

Alsike and Melilot Clovers.

J. H. MARTIN.

I was much interested in the article by Mr. Baldridge in the JOURNAL for Jan. 5th, upon alsike clover for bee pasturage; I have experimented with it sowing a small field and found the bees worked upon it equal to his recommendation. But it blossomed only one year, the next there were but few heads. Others have had similar experience in its non-propagation of itself the third year. We would like further particulars from Mr. B. in relation to sowing the seed, should it be sown alone or with timothy, and should it be gathered with a header?

We wish also to learn the proper time for sowing melilot clover seed. We have some in our immediate locality, but there is plenty of it a few miles from us upon heavy clay soil. I gathered a quantity of seed from the roadside, and sowed it on all waste places along the highway in my own locality. Our soil is gravely-loam but not a seed sprouted. I sowed in the fall immediately after gathering, thinking it would sprout in the spring the same as though it had fallen from the parent plant.

I have also had poor success with Simpson honey plant. Our soil is rich loam and a good farming country. How shall I get my seed to grow?

Hartford, N. Y.

[As requested, Mr. Baldridge will no doubt answer these questions.—ED.]

For the American Bee Journal.

Wintering in the Cellar.

E. A. THOMAS.

A dry cellar is considered requisite for successful wintering by nearly all bee-keepers, but my experience teaches me that it is immaterial whether the cellar is dry or wet, provided, proper ventilation is given. I have always wintered successfully in a damp cellar and never lost a colony.

My cellar has a stone floor, which I think is a very good thing as it enables me to sweep up all the dead bees and keep the room pure and fresh.

My hives are placed on racks which stand on the floor, so that nothing short of an earthquake can jar them. There are four ventilators to the room, one to the open air, one through a drain, and two in a chimney at top and bottom. By means of these I can keep the temperature very even. In extremely cold weather, and in warm spring weather I keep the open air ventilator closed, and ventilate through the drain, which warms the air in cold weather and cools it in spring.

I believe in order to winter successfully in cellar, we should give the bees plenty of fresh, warm air, not letting the temperature vary more than 3° or 4°, and keep them perfectly quiet. Much also depends on their management during the fall months, for if they go into winter-quarters in poor condition, they can hardly be expected to come out in good condition.

During the windy days of late fall, when the sun shines warm on the hives, causing many bees to venture out and perish, I shade my hives and so keep my bees at home. Much has been said about spring dwindling but very little about fall dwindling, which I think is just as necessary to prevent. I endeavor by every means in my power to keep my bees quiet in their hives during the rough, windy weather of late fall.

I put them in the cellar very early, when the hives are dry and free from frost, and keep them perfectly quiet, with the thermometer standing at about 45°, until late in spring.

Under the above conditions my bees come out very strong in spring, with clean, dry combs.

Colerain. Mass.

* * *

For the American Bee Journal.

My Experience in Starting an Apiary.

E. NUOENT, M. D., F. R. C. S. I.

Being determined to embark in bee-culture, I went to the Toronto Industrial Exhibition last fall, where the first Canadian Bee-Keepers' Convention was held, and proved successful beyond conception—thanks to the untiring exertions of D. A. Jones, of Beeton, Ont. Matters of great interest were discussed at numerously attended meetings and the Ontario Bee-Keepers' Association, formed and liberally subscribed to. I had a good deal to learn and was fully satisfied at the prospects bee-keeping offer, as shown by those present who were fully competent to give an opinion.

I then engaged the services of Mr. Conklin, one of Mr. D. A. Jones' late assistants, who was highly recommended by that gentleman, and then I set about purchasing 200 colonies, which I fancied would not be a very hard matter, especially when I had made up my mind to give a good price for good stock; but in this I was doomed to disappointment. At first I had agreed for 200 to 250 colonies, my pick out of 325, that were represented as "first-class colonies" but in looking them over, with my man, we could not get more than 50 at the outside, and of these only about a dozen which my man and I would care to accept. Then I turned my mind to the States as a field to purchase from, and had again arranged with a party for 250 colonies, my choice out of about 400 first-class colonies; but on visiting the locality, was again doomed to disappointment. The bees were not there to choose from. and then after visiting other bee-keepers, friends of the gentleman, in the neighborhood could get perhaps 100 which we much preferred leaving than taking, at a much reduced figure, or indeed at any figure, though the representations made to me in letters were quite assuring. You can fancy the disappointment to a man being brought over 300 miles on such representation.

My man then tried Dowagiac, Mich., where contrary to my expectations and the unpretending letters of Mr. Heddon, we found everything quite beyond all our ideas. About 450 colonies at the two apiaries, all the hives Langstroth and modified Langstroth's, neatly and well made and painted. Honey-boards, marvels of neatness and simplicity; frames, covers, and all in keeping with each other, and not slammed over in workmanship; the sections used perfect pictures and jars for honey that would make any one purchase the contents, were it but for the jar alone; in fact, all here was a complete contrast to the other heaps of confusion, starvation, vermin and dirt visited. No wonder some bee-keepers fail—failure is the proper thing for them, and the sooner bee-keeping becomes a better-cared for business, the better. I would strongly advise those who desire to travel to visit apiaries not to overlook those at Dowagiac and Glenwood, Mich., and if they are not pleased with their management, I shall gladly learn where to see better.

I am commencing bee-culture and wish to make such fair interest for money invested, as one entering into any such speculation should make. I want to learn all I can and turn it to account, and should I succeed, I hope to establish more than one bee farm. No doubt it will admit of such development, and I think the day is not far distant when we shall see bee-keeping taken up by a far greater number of persons.

My 200 colonies cost me much more than they would, had I been able to get such stock as I required in Canada, where I could have saved 20 per cent. duty, and paid less freight than $76.20, which it cost me from Dowagiac here, as also expenses going there in search of them, and this is no small item to a beginner, and unless bee-keepers realize this fact, that "what is worth doing at all, is worth doing well and right," they cannot expect to succeed any more than in other neglected pursuits. There is no use in a person starting without capital, but no matter how little he may have, the golden rule is to "keep within your means," for the idea of getting something out of nothing has been too often tried with just the same results.

I have built a bee-house, 22-in. clear walls, chaff packed, ventilated above and below, and I fancy for its size (20x28 feet) the best in Canada. I have purchased 200 selected colonies of Italians, hybrids and a few blacks. I have a first-rate location, and should I not do as well next year, as I expect, I shall not blame Mr. Heddon, nor shall I throw up the sponge in despair. I shall try on, and endeavor to find out causes of failure, improve or rectify as the case may be. and hope, Mr. Editor, to give you a correct account in due time of either success or the reverse.

Strathroy, Ontario.

* * *

For the American Bee Journal.

Clarke Redivivus.

WM. F. CLARKE.

I think I may fairly claim to be the Rip Van Winkle of American apiculture. Shortly after my transference of the AMERICAN BEE JOURNAL to Mr. Newman, I became so unsettled in my circumstances, as to render bee-keeping out of the question. One cannot write on apiculture and keep up with the times, without being actually engaged in the business, at least in a small way, so my pen came to a stand-still. Then, three years of ill-health sepervened, necessitating retirement, quiet, and rest. About the time I had got recuited, and was meditating re-entrance on a more active life, I found to my surprise and chagrin, that, as in the case of the veritable and historical Rip Van Winkle, the impression was abroad among my old friends that I was dead. A circular issued by Wm. S Hawley, of Rochester, came into my hands, in which the following passage occurs:

"The Rev. Mr. Clark, late editor of the AMERICAN BEE JOURNAL, the man who later accidently got a bee in his mouth while drinking, and died from the effects of having been stung on the back part of his tongue, and in short, others who have lost their lives in one way or another in handling bees, will not be apt to ask to be placed in the 'Don't-care-if-they-do-get-stung' army of bee-men."

The above extract was sent me by A. I. Root, and it certainly read like an obituary notice. I therefore penned a brief communication to *Gleanings* informing the bee-keeping fraternity that ~~I was still "alive and kicking."—Where~~upon I received a letter from Mr. Hawley in which he says:

"I presume you have read the articles in BEE JOURNAL, *Gleanings*, and the *Magazine*. The first accuses me of *lying*; the second of reporting you dead; and the last of an attempt to swindle bee-men out $10 each; to all of which I plead not 'guilty.'....Now, I ask you as a friend to read the extract from my circular again, and construe it as your better judgement dictates. If from it I am to be convicted of charging your death, I must abide by the decision of the court."

Well, I read the extract over and over again. It may be a confession of obtuseness on my part, but I could come to no other conclusion than that Hawley had indeed reported me dead. But, on submitting the extract to another, his critical acumen discovered a loop-hole which I had failed to detect. He thought the passage might be meant as an enumeration of cases in which bee-stings had proved dangerous or fatal, and that "the Rev. Mr. Clark" and "the man who later" died from the effects of a bee-sting in the tongue, were two distinct personalities. I give Mr. Hawley the benefit of the criticism, and exonerate him from the charge of reporting me dead. But the construction of the sentence is such as at first sight to convey the impression which I and others received. The sentence is a queer one anyhow. It contains a genuine Irish bull. The bee-keepers referred to who are dead and gone, will certainly not "ask to be placed in the 'don't-care-if-they-do-get-stung' army of bee-men," or any other army, since they belong to the silent host of the departed. For myself, I frankly own, that I belong to the timid class of bee-keepers, who

DREAD A BEE-STING.

I cannot, as many do, fondly call the bees "my pets," for they have always refused to be petted by me. I could never enter them on my list of friends. They have invariably acted the part of enemies toward me, and have persecuted me without cause. Nevertheless, I had become so habituated to their stings, that I did not care much for them. I used to handle my bees without vail or gloves, taking my chances. I always managed to protect my face by keeping it shaded with a broad-brimmed hat, inclined at a pretty acute angle. But, on one unlucky day, a waspish Italian got his dagger into the point of my upper lip, just where the moustache divides, and I have had a profound respect for a bee-sting ever since. I shall never forget that sharp experience, "while memory holds her seat." It is not surprising, therefore, that I have read with interest Mr. Hawley's manifestoes about

STINGLESS BEES,

with more interest than faith however, I am a natural born unbeliever upon many subjects. and must have the proof before I repose confidence. In common with most bee keepers who have philosophised on the subject, I have been led to regard the sting as an important appendage to the honey-bee. I think the Creator had a wise design in arming this little insect with a formidable dagger. As I have said in my prize poem,

"The bee 's a warrior bold,"

and the warlike propensity in the bee is like the same propensity in man. It is meant for the protection of precious interests and vested rights. The combative element in man is intimately connected with that quality of energy which is so essential to success in life, and I am inclined to think it is much the same with the bee. As a wholesome dread of the law keeps many theives honest, so a like fear of bee-stings prevent nocturnal marauders from robbing hives. Mr. Hawley's account of the Brazilian or stingless bees is

HARD TO BELIEVE.

He has been able to find but one instance of their being tried outside of Brazil. That was in Germany. The experimenter claimed that these bees were far more prolific; that they stored on an average fully a guarter more ~~honey than the German bees; that they~~ had longer tongues; that they were more hardy; that they were not addicted to robbing; that the queens would not mate with other drones; that they are as large as the Italian, and quite as handsome. All these good qualities, and no stings! Truly this is the *apis angelica!* O for an apiary of them! They would be "pets" in spite of themselves! Wouldn't I caress and fondly them, even if they buzzed discontent at my loving attentions! But I cannot help thinking that if such a race of bees had found their way to Germany, there would be more than one instance on record of their being tried. Our transatlantic brethern would not have been blind to their angelic attributes. That class of apiarists, who, like myself, are bee-hated, would have heard of them; adopted them; multiplied them; and before now, there would have been any quantity of stingless bees in the market. One word more as to the

STINGLESS BEE SOCIETY OF AMERICA.

Mr. Hawley may be thoroughly honest and upright. From my slight knowledge of him, I am inclined to think that he is. But an "association" of which he is president, executive, and membership, can hardly be expected to inspire public confidence. If he were well known as a responsible bee-keeper; had these bees in actual possession; could state from personal experience, that they were angelic insects; and offered them for sale from his own apiary, the case would be different. As it is, it is proposed to try an experiment, on an insufficient guarantee. Bee-keepers have been swindled so often, that it is no wonder they have learned caution, and even become suspicious. With all my lack of faith, I would like to see the experiment tried, but I confess I do not see much likelihood of it, in the present shape of matters. If Mr. Hawley could go to Brazil, as Mr. Jones did to Cyprus and Palestine, on his own hook, import the harmless creatures, and then offer them for sale, the thing would be feasible. The mention of Mr. Jones reminds me that he has embarked in an enterprise which fills me with

HORROR AND ALARM.

He has undertaken to import the big bee of Java, that awe-inspiring insect, about which I read a paper at the Chicago meeting of the North American Bee-Keepers' Association. I implored my fellow-bee-keepers to give that dreadful bee a "good letting alone" until I was dead and gone. That a fellow Canadian should be so cruel as to bring this fearful *apis* to my country, is indeed "the unkindest cut of all!" But Jones says he doesn't care if their stings are an inch long, provided they will gather more honey than others. He is not satisfied with 250 pounds of honey per hive, and a prospect of $10,000 profit next year. Covetous man! He will certainly find himself in the penitentiary or some other awful place, if he introduces into a civilized country like Canada, such a savage barbarian of an insect as the big bee of Java!

THE WEEKLY.

I cannot close without expressing my gratification that the AMERICAN BEE JOURNAL has grown into a Weekly, and my hope that its success in that form may be even greater than that of its monthly predecessor.

Listowel, Ont., Jan. 15, 1881.

* * *

For the American Bee Journal.

Notes by the Way-Side.

H. L. JEFFREY.

I have been thinking for the past two seasons I would try to send you a report in the shape of "Notes by the Way-Side." Since I was appointed Vice President of the National Association, in 1879, I have devoted all the time I could spare in trying to give a little information to the box-hive bee-men that are within 20 miles of me, and I have picked up a few items that I think call for an article that will invite the attention of amateurs, novices and specialists to look out for some trouble, and the cause I cannot determine, though I am satisfied it is not a fungoid growth. Mr. L. A. Pennoyer's letter, on page 3 of the AMERICAN BEE JOURNAL for Jan. 5, is what has caused me to mention the trouble now. It is not the regular foul brood, but, so far as I can learn, it is just as destructive in its tendency to depopulate a colony. The first symptoms shown are that nice combs of larvæ are to the casual observer suddenly nothing but empty cells, or even a comb well stored with eggs, and yet the colony keeps running down or depopulating till there are no bees left.

In this trouble the brood simply dries up, and if the comb is looked at in the same position it occupied in the hive, the lower side of the cell looks dirty, and if you look into the bottoms of the cells there is nothing to be seen, and yet every successive lot of brood will go in the same way. I cannot call it the regular foul brood, because it is never capped over; at least, I never knew it to live till capped over. I cannot ascertain the cause, though there are some evidences that indicate that it is the lack of vitality in the queen, and some that indicate that the larvæ starve for want of bee-bread. Yet none of these causes seem to be the originators of foul brood, neither does this trouble seem to turn into foul brood so far as I have observed.

Another trouble that I have found, and only in a low or black grade of hybrids, is that the brood is uncapped after the eyes are formed, and then they turn dark-colored and are about one-third thrown out. This species, upon close examination, shows a reddish-brown, dust-like substance at the extremities of the thrown-out bees, that I think must be a parasite. After a while it turns into foul brood that is foul enough for anybody.

The dried-up brood I have had only in one of my own colonies, and that contained an imported queen; but they were cremated, and have left no taint behind them.

The first I ever saw of the bald-headed bees was 3 years ago, but the past season I have found plenty of them 18 miles from here, near the New York State line, and nearly all the trouble with brood that I have seen, has been invariably in the low grade of black hybrids. This is not guess-work, but I have watched close and in many cases.

I would give you one cause for real foul brood, that I have traced out in over 50 cases, but this manuscript is now too long. Perhaps I may give it before long, if it is wanted, and its preventive also.

Woodbury, Conn., Jan. 6, 1881.

[Anything new relating to foul brood, its cause, prevention and cure, is read with deep interest, and we hope Mr. Jeffrey will forward the article at an early day.—Ed.]

SELECTIONS FROM OUR LETTER BOX

Dying by Wholesale.—Bees here are dying by wholesale. We have had 7 weeks of cold weather and there is no prospect yet of its being warmer. The Weekly Bee Journal is just splendid; it cannot fail to be gladly received. Success to it and its editor.

L. Johnson.

Walton, Ky., Jan. 18, 1881.

Well Paid.—I can assure you I am very much pleased with the Weekly Bee Journal. I think I have been highly compensated for the money invested. You have my best wishes for the American Bee Journal.

Toledo, Iowa. Wm. E. Struble.

No Honey last Season.—The past season yielded no honey. I fed my bees over $30. worth of sugar syrup to keep them alive. I expect to lose many of them during this cold winter. I fed freely in the early part of October, and put them into winter-quarters the first week in November. I can do without honey but I do not want to do without the American Bee Journal.

Daniel Rider.

Fairfield, Iowa, Jan. 7, 1881.

Prevention of Swarming.—I was successful last season in preventing swarming. From 35 colonies in the spring I had but 6 swarms. My desire was to get more honey and less swarms. I have sold 1,326 lbs. of comb honey and have about 200 lbs. more, partly dark and some boxes not quite filled out. Have used all we wanted in the family. Three of my colonies were queenless in May, from which I obtained no honey. What I have sold comes to $163.88. Bees have done rather poorly this year. Some complain that their bees have done nothing, while others have done very well. Success to the Weekly Bee Journal.

T. Lashbrook.

Waverly, Iowa.

Severe Weather for Bees.—How our bees will come out of this severe winter, I do not know, but I fear for them. We had a poor season last year, especially the latter part of it. Bees were strong in the fall and commenced winter with plenty of honey. I am much pleased with the Weekly—for me it is a necessity.

G. W. Jenkins.

New Liberty, Ky., Jan, 8, 1881.

Tobacco Smoke for Bees.—I saw the assertion in the *Western Rural* that tobacco smoke does not stupify bees, but alarms and causes them to fill their sacks; therefore, they will not sting. The truth is, that a common clay pipe, half-filled with tobacco, lighted, with a cloth over the bowl, and blown forcibly into the entrance of the hive, will cause the bees to fall from the combs and lie harmless on the bottom-board, as any bee-keeper can satisfy himself by one trial. It gives the operator time to take the frames all out and put them back again.

E. Bump.

Waterloo, Wis., Dec., 20. 1881.

Poisonous Wild Honey.—I do not see why wild honey is necessarily poisonous any more than tame honey; the wild bees and the flowers are the same in both cases. My theory is, that the cause of wild honey being poisonous is owing to the fact that when a tree is cut and falls, it produces a sensation in the hive, often smashes combs. honey, bees, pollen and rotten wood all together, in which operation it is the nature of the bees to sting, depositing the powerful acid in the honey; then it is eaten and is quite liable to produce sickness. and the stomach may be in such a state as to produce death, if enough of the poison is taken. We kept bees in Vermont, and our honey never made any one sick. A bee-tree was cut near by, and all who ate of the honey were sick. There was a great deal of argument made over it, but they finally settled the question satisfactorily to themselves by supposing the honey was gathered from kill-lamb.

L. Martin.

Hesperia, Mich., Dec. 10, 1880.

Small Share of Honey.—My bees were in the best of condition to winter; plenty of stores and of fine quality. The bee keeper had but a small share of honey for last season's labors. I think the prospect is good for another year. Success to the Weekly Bee Journal and our honey gatherers.

Bethany, Ill. A. M. Rhodes.

Dysentery.—I am sorry to say that that fearful disease, dysentery, has visited our vicinity and destroyed more than half of the bees in the neighborhood; some loosing all. We have lost but 7 colonies as yet, but what the end will be we cannot say. We have every number of the Bee Journal from June, 1878, as neat as when received, but they are worth more than money to us, I could not part with even one number.

Fincastle, Ind. Mary Brothers.

Honey Season in Pennsylvania.—We have the first two numbers of the Weekly and are very much pleased with it, and the prospect of getting such valuable information as the Journal always contains, just fresh from the authors, is alone worth the additional cost. It is agreable reading these long winter evenings. This shows progress that deserves encouragement. No telling but what a daily may yet be issued, and even progressive bee-keepers be connected by telephone with the exchange in the Journal building. We had a very good season for honey and increased till July, but afterwards about as poor as it could be. We got about 200 lbs. of honey, and doubled our number of colonies. We now have 21 colonies packed in oat chaff, 6 inches on all sides, and the bees covered with quilts and old sacks filled with chaff pressed tightly into the upper stories. We will have no more hives without a moveable cap. about 2 inches and gable roof with ventilator at each end. By removing the cover the upper story may be nicely packed, while with the cap fastened to the cover it is more trouble and cannot be done so well. It is not necessary to state that we have severe weather, etc. Since the beginning of November our bees have had no fly, excepting 3 colonies which were out last week. The alighting boards and the snow around was considerably soiled, and some of the bees chilled and remained out. We have lost none yet and hope to get them all through, but won't whistle until nearer out of the woods.

W. H. Stout.

Pine Grove, Pa., Jan. 15, 1881.

Bee Keeping in Texas.—I have received the first copy of the Weekly Journal. It is very fortunate to be able to greet such a visitor once a week. I am much interested in bee-culture, especially in our State, for we have as good a country as there is on earth, for bees and honey. Very few have thought of it, beyond having some old gums in fence corners. I have the simplicity hive; the first movable frames I ever saw. I have also the first Italians I ever saw. I love to see the interest developing everywhere in this pleasant as well as profitable industry. I am determined to aid its progress every way in my power, and if all who take an interest would do the same, we would soon become a power for good in this great land. This is a gloriously bright New Year's morning; the past 5 or 6 days have been very cold, the thermometer as low as 11° above zero—the coldest for 30 years. Bees have done well this year, God prosper us all, and gives us a plenteous year.

J. E. Lay, M. D.

Hallettsville, Texas, Jan. 1, 1881.

About Fertilization in Confinement.—Your correspondent, M. B., from Indiana, seems to think that he has succeeded in having his queens fertilized in his new fangled cage. I would be glad to know that it was a success, but like "blind Jack" I would "rather see it than hear tell of it." In the back Nos. of the Journal some one claimed to have had queens fertilized by holding them in his fingers, which I have thought might succeed if the queen could be made to open the vagina or spermatheca, either voluntarily or spasmodically. Suppose they were made to gape open the vagina, by the use of chloroform or some anæsthetic, say puff ball or some of Mr. Alley's tobacco smoke, say not enough to destroy life. but just enough to cause them to open up the parts; the drone, I think, can be made to do its part by first squeeze his head, and then let the pressure gradually extend back to the abdomen. Those that have never tried it, can learn something; this is only thrown out as a suggestion for experiment. J. F. Love.

Cornersville Tenn.

Long Confinement.—Our bees have not had a flight since the first of November. The thermometer, is 16° below zero. We winter in cellars here. I never knew a man to lose a colony if they had plenty of honey, and proper ventilation, in this country. Success to the Weekly Bee Journal.

Harlan, Iowa. John McGinness.

Of Much Benefit.—I must have the Weekly Journal. I hope I will get as much for the amount invested as I have for the past volume. The past year was ½ the amount of the Weekly, but I was benefited many times the amount, besides the knowledge I have for next year's work. I began my apairy with the Journal, last spring, and by every number I revised my work, otherwise I would give the business up. I have 55 colonies, 43 in the celler, and 12 packed in planer shavings.

Cedar Falls, Iowa. A. J. Norris.

Homeless Swarm.—Two of my neighbor's boys found a swarm of bees and about a half a bushel of comb hanging to a fence rail, about two weeks ago, during our coldest weather. It is needless to say they were all dead. The comb contained considerable honey—enough to have wintered them. That was something new to me, so I thought I would see if you ever saw or heard anything like it. C. Hollowell.

Dunreith, Ind., Dec. 25, 1880.

[We have frequently known swarms to settle after flying a long distance, and make considerable progress in comb building; apparently as though they had been disappointed in their selection of a home, and were keeping themselves busy until a satisfactory home could be found. The case you cite was probably similar, except that their delay was extended until after the storing of honey and depositing of eggs took place, when they were loth to leave and the early setting in of winter found them unprotected, and they perished. These cases are not frequent.—Ed.]

Errata.—On page 2, column 4, of the Weekly American Bee Journal, I was made to say that I returned the queen to the colony; I did not. Before the queen is expected to emerge, the cage is adjusted to the entrance of the hive, and remains there until the object is accomplished, when she immediately returns to the colony without aid. It takes but a few minutes for the bees to learn their passage and resume their work.

M. B.

First Year's Experience.—I am highly pleased with the idea of a Weekly Bee Journal; it looks like business, to get the Journal weekly. I commenced with 3 box hives, last spring, I have 8 Langstroth hives in pretty fair condition—2 of them Italianized and 2 hybridized. This is the hardest winter I ever saw in this country by half. Six to eight weeks earlier than ordinarily winter commenced in this latitude. We had 8 or 10 weeks of drouth last summer—causing bees to be rather short of stores, I have had to feed and, but for buckwheat and the fall weed bloom, all my bees would have starved before winter came. We took no honey—many of the bees of the neighborhood have died long since, of starvation; one man has lost all his bees—they were all in box hive and "tree gums."—There are but very few movable frame hives in this portion of the country. If I can only be successful with my 8 colonies and get them through the winter, there will be a revolution in bee keeping in this section. Men will try Bee Journals and Langstroth hives, etc.

J. A. Burrow, M. D.

Santa Fe, Tenn., Jan. 17th, 1881.

Comb Foundation Machines.—I have read the article of Dr. Brown, in the American Bee Journal of the 5th inst., and as I do not agree with him, I wish to answer as follows:

1. He says that the Dunham machine is sold at the same price as the others; but I am assured that he does not know the price of every machine.

2. He says the Dunham machine is more difficult to make on account of its high side-walls. Had he the experience in making machines that I have, he would not say so, because the punch has only to be driven deeper into the rolls to create this slud. I do not make high side-walls on my machine, and I have good reasons for not doing so, which if Mr. B. wishes to know I can tell him. John Bourgmeyer.

Fond du Lac, Wis., Jan. 17, 1881.

[The above is a very curious letter—curious, because incomprehensible. We have read and re-read the article written by Dr. Brown, above alluded to, published on page 5 of our issue of the 5th inst., and cannot possibly give it the construction Mr. Bourgmeyer places on it. The Doctor's remarks are applicable to the cost of the foundation, and *not* the machine, and his eulogistic mention of it is endorsed by nearly all who have used it; he is too careful of his very high reputation to risk it on an unworthy commendation.—Ed.]

THE AMERICAN
BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR.

CHICAGO, ILL., JAN. 26, 1881.

☞ The *Semi-Tropic California* says "Our pospect for a honey crop in 1881, in Los Angeles, and vicinity, is good."

☞ We have now obtained the copy of minutes of the National Convention of 1871. Thanks to Mr. A. F. Moon, of Rome, Ga., for it.

☞ The "Bee Hive and Home Magazine," proposed to be issued by Mr. Crowfoot, is not to be issued now. Mr. Crowfoot says: "The enterprise is indefinitely postponed."

☞ The editor of the Somerset, Pa., *Democrat*, speaking of the honey of Mr. H. H. Flick, of Lavansville, Pa., says it "equals California honey in color and excells it in taste," and that he has a large apiary on his farm near Lavansville.

☞ It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Postoffice, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

☞ The weather in the North is still cold, but milder than it was in the early part of this month. It has been colder all over the country than it has been before for years. In Texas it is reported to be colder than for 30 years before. Mr. W. Williamson, of Lexington, Ky., in a letter, dated January 20th, says: "The severe weather is breaking up—we hope for good. We anticipate an early spring. Those of the bees that live through the severe winter will need feeding very early."

☞ Last Sunday's Chicago *Times* contains the following item of news: "A pouch of registered mail matter of the first-class, which arrived in Chicago by a Lake Shore train on Wednesday evening, from Rochester, was found to have been cut open and robbed of valuables to an indefinite amount." These were registered letters and packages containing money. We hope there were no letters in it addressed to us.

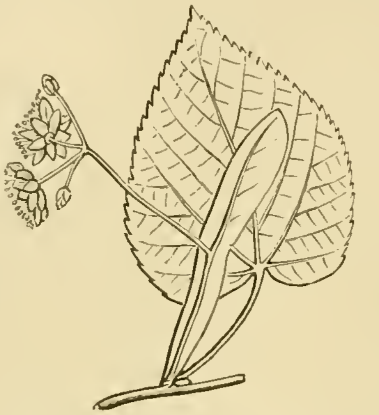
☞ We have filled orders for quite a number of Binders for the Weekly BEE JOURNAL. We put the price low, 30 per cent. less than any one else could afford to sell them, for we get them by the quantity at wholesale and sell them at just enough to cover the cost and postage, the latter being 21 to 23 cents, on each. We do this to induce as many as possible to get them, and preserve their Weekly numbers. They are exceedingly convenient; the JOURNAL being always bound and handy for reference. The directions for binding are sent with each one.

The Basswood or Linden Tree.

Will you please state the habits of the basswood tree; its height, how long before it will yield honey, and if it will flourish in this State.

E. M. GRESHAM.
University of Va., Jan. 18, 1881.

Basswood or linden (*Tilia Americana*) is indigenous to a large portion of the North American continent; growing, often, to a very large size, and vieing with other forest trees in height. It is quite hardy, and grows readily and thriftily from the seed. We have heard of its blooming and secreting honey in six years after planting. The seeds should be sown in drills and cultivated one year, then transplanted, setting from 10 to 14 apart each way. It prefers the proximity to water-courses, bottom-lands, and gravelly soils in which water stands near the surface the whole season through. With these points borne in mind, and kept partially shaded until the roots and rootlets are well developed, we think it will flourish in your State. It is worthy of a trial, as it possesses a magnificent foliage, and is a great favorite with the bees when in bloom. We give on the first page a very correct illustration of a twig in bloom.



☞ We will send sample copies to any who feel disposed to make up clubs for 1881. There are persons keeping bees in every neighborhood who would be benefitted by reading the JOURNAL. and by using a little of the personal influence possessed by almost every one, a club can be gotten up in every neighborhood in America. Farmers have had large crops, high prices, and a good demand for all the products of the farm, therefore can well afford to add the BEE JOURNAL to their list of papers for 1881.

We have concluded to make the following offers for all clubs sent in before Jan. 31: For a club of 2, *weekly*, we will present a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

☞ On Monday morning, express and mail cars, with all their contents, as well as four messengers, were entirely burnt up, in a railway accident near Elmira, N. Y.

☞ The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

☞ Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Saturday of the week previous.

"Compulsory Honesty."

We have received from Mr. Chas. F. Muth, of Cincinnati, O., the following communication, criticising the bill published in our issue of the 12th inst. under the above caption:

Compulsory honesty, if demanded on too broad a scale, will accomplish nothing, just like compulsory temperance or compulsory religion. I feel that way a little more, perhaps, because that law is proposed by a house which is recognized by our business community as one of the largest adulterators in the country. They do not adulterate honey, of course, but they have to add a certain quantity of glucose in order to keep the honey from granulating; the trade demands it. So they stated, some time ago, that they had to add a certain quantity of cornmeal to mustard, in order to make it more palatable—but their mustard was pure. Like the French army, which was never conquered—only beaten.

Honey has become a staple article of great importance of late years, and has an important future. It can be shown of sufficient importance to our legislators to pass a law exclusively for the protection of honey; and it is my opinion that we shall accomplish nothing with a petition for universal protection.

Let us draw up a petition for the protection of honey alone, setting forth the great growth of its production of late, and the prospects for its future. Let us make it plain to our representatives how necessary to a healthy development of the production of honey is the protection of the law against its adulteration, etc.

If we draw out a petition (or resolutions) in good style, I am certain that the representatives from Ohio will use their best endeavors to have a law passed in our favor. Our friends in other States, exercising a similar bearing on their respective representatives, will aid the matter considerably. Would it not be well to petition our State Legislatures as well as Congress?

Cincinnati, O., Jan. 17, 1881.

We care but little with whom the bill referred to originated, so that the amendments we suggested (or similar provisions) to make it operative and to cover the public wants be incorporated. The mere draft of the bill, as published in the *American Grocer*, did not seem to cover the whole ground, but with proper effort on the part of bee-keepers and others it could easily be made to cure the grievous evils complained of. We must admit we are unable to comprehend the analogy between compulsory honesty and compulsory temperance or compulsory religion. The first would compel the dealer to give the purchaser an honest equivalent for his money, and anything else would be deceiving an ignorant or unwilling purchaser. The second would compel a dealer to refuse a customer what *was* called for, presupposing the purchaser not to be a free moral agent. Compulsory religion bears no closer comparison, as it would be an attempt to compel certain phases of conscience, without reference to acts performed.

Petitions have been drawn up, and presented, and "pigeon-holed" time and again, providing exclusively against the adulteration of honey. And we are not prepared to assert, that were a special law enacted it would help matters. We have heard of nothing good resulting from the special law in Minnesota, New Jersey and Kentucky. So effete is the law in the latter State, that mixed "strained" honey can be bought in any quantity and at many stores in Louisville at the present time—so we are informed.

In Illinois we have an apt illustration at the present time of the non-effectiveness of special laws. The dairymen, feeling sorely the evils inflicted upon them by unscrupulous counterfeiters, with an honest but short-sighted zeal or a selfish ambition to protect themselves alone, succeeded in procuring the passage of a stringest special law protecting dairymen and dairy products. Not only has the law proven ineffectual, but the evils have augmented to a magnitude which is truly stupendous, and now the *stuff* is in the majority. Hundreds of families in Chicago at the present time dispense with butter, because they know not what nor from whom to buy. Some time ago a paper was circulated among business houses, and several thousand dollars were subscribed with which to employ legal talent and prosecute the offenders, and—*there it rests*. Last week many of our business and commission houses signed a paper pledging themselves not to traffic in the stuff; but it will probably effect nothing but lessen competition. And still not a tremulous fear quivers the nerves of the guilty manufacturers, nor do the pangs of remorse rob them of a moment of refreshing slumber. As well pass a special law making it a crime to steal money or other valuables in small parcels, but classify the plundering of communities among shrewd business or financial operations.

We need no law to prevent honey adulterations, unless it will prevent sugar and syrup adulterations, with which we come directly into competition. We have no moral right to ask protection for our pure commodities, unless we accord the same protection to other honest producers; nor is it in accord with the theory of democratic government, to legislate class or special laws to punish crime. We can see no remedy but a general law, simple and practical in its enforcement. Let the informer be repaid out of the fine for any trouble or expense he may incur. Make it an object to the defrauded customer to prosecute the swindler, and he becomes an effective agent in enforcing compulsory honesty.

Since the above remarks were put in type, we notice the following article from the pen of Mr. F. J. Emery, in a late number of the *Iowa Homestead*, and as it bears so directly upon the subject under discussion we cannot refrain from copying it:

To point out that which has been done elsewhere, in a parallel case, might be done here also as a remedy. About 30 years ago in England a law was passed relative to adulteration of food and etc. It has been very strictly carried out. The substance of the law is that no article shall be sold under a false name. For instance a man may sell chicory, but he must not mix it and call the mixture coffee. He may sell oleomargarine, but he must not call it butter; and so of the endless variety of items used as food. A public chemist is appointed whose duty it is to analyze what is brought to him of suspected articles bought at the retail shops, and if adulterated, a State prosecution before a justice summarily disposes of the case by a fine. A light fine for the first offence—heavier for a second conviction, and the shop and its owner are advertised in the papers as having such and such articles adulterated, and particulars of analysis are given. If the retail dealer pleads that he bought the adulterated articles in good faith from the wholesale dealer he is told "the public must be protected, and you have your remedy against the wholesale dealer."

☞ When changing a postoffice address, mention the *old* address as well as the new one.

Experience with Comb Foundation.

Seeing of late that a number of apiarists give their experience in the use of comb foundation, and that their verdict is in favor of that made on the Dunham machine, will you allow me modestly to give my experience with foundation for the benefit of those that have yet to commence its use.

In 1878 I used 50 lbs. of foundation made on the Root machine, received from a manufacturer in the State of New York, which the bees used readily and to my satisfaction.

In 1879 I used 103 lbs. made on the Root machine, received from a manufacturer in Ontario. It pleased me and the bees well.

In 1880, I used 175 lbs. (out of 300 lbs. purchased) made on the Dunham machine, that did not please me. Contrary to the testimony of others, it was not received by the bees so readily, and it *did sag very much.* The high walls did not come with the foundation, as you will see by the sample enclosed. It was purchased in Michigan, from whom I will not now say, as it would not be a good puff for said firm.

I think foundation a success for the brood chamber, if used about 6 feet to the lb., made of pure wax.

Woodstock, Ont. J. B. HILL.

[We are under obligations to Mr. Hill for enclosing the sample of objectionable foundation, as it gives opportunity for intelligently commenting upon what has probably caused some of the differences in experience with Dunham foundation. We say *objectionable* foundation, for if the sample sent is a fair specimen, leaving out the possibility of adulteration in the wax, we object to it for use in the brood chamber—1st. Because it is too light in weight; 2d. It is *minus* the Dunham side-walls; and, 3d. It was not made on a Dunham machine. We have seen and used foundation made on five Dunham machines, and the same general characteristics were prominent in each, viz: Thin septum or base; high, prominent side-walls, and preponderance of wax in the sides, where the bees can use it most readily and rapidly. Of course we do not know who Mr. Hill purchased from, but we *do know* the sample sent to this office is not Dunham foundation.

In this connection, we will take occasion again to impress our readers with the desirability of purchasing supplies from honest dealers. Because an article is sold for the least money, is not proof that it is the cheapest; any more than that honesty always dictates the most plausible story. The advertisements of several responsible dealers will be found in our columns.—ED.]

◆

Questions.—1. When snow covers the earth, what must be the temperature to be successful in removing bees from the cellar for a fly?

2. Will bees cleanse the hive from dead bees while in the cellar, if the entrance is left unobstructed?

3. Is it advisable to cover the entrance with wire-cloth while in the cellar?

QUERY.

St. Paul, Minn., Jan. 15, 1881.

1. When the weather is warm enough that bees can fly from the hive and return, without dropping on the snow.

2. No; but they frequently come outside to die.

3. No; never.

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☞ Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

Do we Want Facts?

The Rev. A. Salisbury, in the AMERICAN BEE JOURNAL of Jan. 12, refers to a resolution brought before the Cincinnati Convention, which was tabled very promptly without discussion, and proceeds to deliberate on the question in a most reckless manner, as though that "high-toned" body had not said by their action, We do not want this matter discussed. Not only does he do this but he incites others to the same folly, for he says, "We want to hear from the leading bee men of the country on this subject."

Mr. S., what do you mean by such suicidal disloyalty to the great bee-keeping interests of this country? Do you mean to ruin the importation trade, that we have been to so much trouble in building up? I fear you do. What do you think that Convention "sat down" on that resolution for? Perhaps it was not the proper place to discuss such issues. Is it facts we want?

H. R. BOARDMAN.

East Townsend, O.

Referring to the above communication, which savors more of sarcasm than candid discussion, we copy the resolution alluded to, from the BEE JOURNAL'S report of the proceedings of the National Convention, second column page 520, November number, 1880:

Mr. Boardman moved, as a test of the sentiment of the Convention,

Resolved, That the importation of Italian queens is no longer advisable as an improvement of our present race of bees.

It is difficult to imagine how a Convention, composed of many of the most intelligent and most progressive bee-keepers of America, could do otherwise than table such a resolution, when offered, without supplemental explanation, to test the sentiment of its members. In fact, even though as individuals fully coinciding in the gist of the resolution, it could not adopt that, alone, without stultifying itself by discouraging one of the *possible* means of further improving our stock, through the importation of the most superior strains of Italian queens—if there are superior and inferior bees in Italy, as claimed by the breeders there, and, as we are free to admit, we fully believe.

The insinuation that the resolution was tabled in the interest of the importers, is wholly without a shadow of foundation, and is unworthy of Mr. Boardman himself. We venture the assertion, that not one in ten of those who voted in the affirmative have ever imported a queen from Italy direct for traffic; and not ten per cent. of the few who have, can boast of clearing one penny as profit, if their sales were made at present popular prices.

We reiterate, that "while we believe the intelligent and discriminating bee-keepers of America have succeeded in breeding a strain or strains of bees equal, if not superior, to any to be found in Italy, we would not discourage any from importing if an improvement is possible....We do not doubt there are many fine queens bred in Italy, but we *do* believe none are better than our best." And certainly, the Convention, by its action in tabling the resolution given above, did nothing which could be construed as a more positive endorsement of the system of indiscriminate importation than can be found in the language quoted above from our issue of the 12th inst.

"Is it facts we want?" Yes; of course, it is. But we want *all of them.* The "high-toned body," as Mr. Boardman sarcastically alludes to the Convention, and of which he was a very active member, "sat down" on the resolution because it did not properly cover all the ground. The first and second of the series of resolutions offered by Mr. Hayes did cover all the ground, were freely and fully discussed, and our report says "passed unanimously" upon a vote being taken. Compare, carefully, the resolution offered by Mr. Boardman with those adopted unanimously by the Convention, and the cause for complaint will remain undiscovered, unless it is because the first of Mr. Hayes' resolutions specifies a *sole* reason why importations should be encouraged, if at all, and Mr. Boardman's resolution left that to implication.

"Do we want facts?" If so, refer to the page above cited, and it will be observed the resolution *was not* "tabled very promptly without discussion." Our reporter gave some of the discussion, but most of it being irrelevant, was omitted to save space.

It is evident Rev. Mr. Salisbury's communication was read under a misapprehension. His many years' experience with imported and home-bred Italians have not been thrown away; nor have his observations as a progressive bee-keeper failed to develop queens, in his own apiary superior to their imported mothers. We are confident had he been in attendance at the Cincinnati Convention, his vote would not have broken the harmonious unanimity with which the following resolutions were adopted:

Resolved, That the importation of pure Italian, Cyprian and Holy Land bees into North America, ought to be encouraged for the *sole* purpose of adding new and different strains of blood to that we already have.

2. That the strain of Italian blood we now have has reached a higher standard of excellence than is to be found in the native home of the Italian.

3. That queens reared from pure selected home-bred Italian mothers, should command at least as high a market value as those bred from imported mothers, where pure Italian stock is the sole object desired.

For Mr. Boardman, personally, we have the highest regard. We listened with much interest to many of his remarks, and certainly he cannot complain of any want of courtesy, either on the part of the officers or constituent members of the Convention. That he takes an honest pride in the advancement of scientific apiculture we do not doubt, and we fully sympathize with him in his estimation of the superiority of American-Italian bees; but we cannot believe with him that the Convention endeavored to shirk any expression of opinion, nor that the Convention, or a majority of its members, failed to give any matter brought before it proper consideration. That all questions deliberated upon were settled with the precision of inspiration we do not claim; but all decisions were rendered through honest motives—the talent and experience represented were of a high order, very far above the conventional average. We have attended many bee-keepers' Conventions, and other deliberative bodies, but never one superior to the Convention which assembled in Cincinnati last fall; and it is a source of honest pride to be able to refer to it as a representive body of bee-keepers. Is it facts you want?—*these are facts.*

☞ We have accepted an invitation to attend the Ashtabula County, O., Convention, which is to be held at Andover, O., on Tuesday and Wednesday, Feb. 8 and 9, 1881. On the evening of Tuesday, the 8th, we have engaged to deliver a public lecture on "Bees and Honey." There being a large number of bee-keepers in that region, we expect the meeting will be very largely attended. All interested will please notice the date —as it has been changed.

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☞ The Northeastern Bee-keepers' Association will hold their Eleventh Annual Convention, in the Common Council chamber, at Utica, N. Y., on the 2d, 3d and 4th days of February, 1881. The Executive Committee are determined to maintain the high standing the Association has justly gained in the past, and propose to out-do all former efforts at the coming Convention. Essays or addresses are expected from Capt. W. F Williams; Prof. J. Hasbrouck; Mrs. Frances Dunham; James Heddon; Chas. Dadant; H. A. Burch; Jno. Y. Detwiler; C. P. Dadant; A. G. Thurber; W. A. House; A. J. King; Julius Hoffman and others.

A gold medal will be awarded for best essays, on the following subjects: "The different races of bees and their crosses." "Wintering bees." "Marketing honey." "How can we make the apiary the most profitable?"

For best essay upon any subject outside of those mentioned, one tested Cyprian queen, donated by L. C. Root.

Diplomas will be awarded for best display of implements; the best comb foundation for brood-chamber; for surplus boxes; best honey extractor; best bee smoker; for the most practical bee hive.

One dollar each, for the best crate of honey in the most marketable shape, and for the best package of extracted honey.

For the neatest and best honey crate and section boxes (cost, quality and finish to be considered), ooe tested Italian queen, donated by Geo. W. House.

All are invited to send implements for competition or exhibition. Articles sent to the Secretary will be sold or otherwise disposed of as the owner may direct. It is desired that all articles sent be the same as kept in stock, or forwarded to purchasers

GEO. W. HOUSE, *Sec.* L. C. ROOT, *Pres.*

For the honor of the fraternity in New York, we hope that the friends of truth and justice will be present at the above meeting. The very unjust resolutions passed, a year ago, should be rescinded and thus in a measure blot out the disgrace which now attaches to the last North Eastern Convention. Many were indignant at the matter then, and we hope they will make an effort to be there, to assist in "making the crooked things straight." We do not imagine that it will be difficult, for some of those who were interested in passing them, if we mistake not, will *now* labor to have them reversed.—ED.]

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☞ The annual meeting of the Southern Michigan Bee-Keepers' Association will be held in Battle Creek, Mich., on Wednesday, Feb. 9, 1881, at 10 o'clock a. m. B. SALISBURY, *Sec.*

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☞ The Champlain Valley, Vermont, Bee-Keepers' Association will hold its annual meeting in Brandon, Vt., on Thursday and Friday, Jan. 20 and 21, 1881. H. L. LEONARD, *Asst. Sec.*

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☞ The Nebraska Bee-Keepers' Association will hold their Annual Convention, on the 10th and 11th of February, 1881, at Plattsmouth, Cass Co., Neb. Western Iowa bee-keepers are cordially invited to attend.

HIRAM CRAIG, *Pres.*

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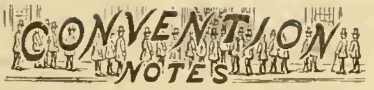
A Great Paper.—We desire to call the attention of our readers to one of the greatest newspapers of the age—one that secures the best writers in this country and Europe, regardless of expense; has the best and fullest book reviews of any paper in the country; has able articles upon financial subjects; has departments devoted to Fine Arts, Biblical Research (something that cannot be found in any other newspaper in the United States), Farm and Garden, Insurance, Weekly Market Reports, Cattle Market, Prices Current, Dry Goods Quotations, etc.—in fact, a newspaper fully suited to the requirements of every family, containing a fund of information which cannot be had in any other shape, and having a wide circulation all over the country and in Europe. We refer to THE INDEPENDENT, of New York. "The largest, the ablest, the best." See advertisement, in another column, and send for specimen copy.



British Bee Journal.

Congress of Bee-Masters at Cologne.

COL. G. J. PEARSON.

The occasion was somewhat more than ordinarily interesting, for it was the twenty-fifth anniversary of the Congress.

The proceedings commenced on Monday evening by an unofficial meeting of those who arrived from all parts of Germany and Austria to take part in the Congress. Among them were many who have a European reputation as bee-keepers, and I may especially notice the great Dzierzon, the Baroness Von Berlepsch. Herr Vogel (author), and the Pasteur Rabbow, of Hohendorf in Pomerania.

The Exhibition opened on the morning of Tuesday the 7th, and resembled very much all exhibitions of the same description. If I may offer criticism on it, I should say that practical utility was not sufficiently kept in view by the greater number of exhibitors, who rathor sought to catch the eye by the attractiveness of there articles. I may mention with satisfaction that two out of three of the exhibitions which gained silver medals (of which only three were awarded) were made up largely of articles which had at least a portion of their origin in England, Mr. Neighbour having carried off one of them for an excellent collection of apicultural instruments and super honey, and Mr. Dennler having also a silver medal awarded to him for a dozen of Mr. Abbott's honey-boxes magnificently filled, and an extractor, the idea (though not the mechanism) of which was borrowed from that of Mr. Cowan, which gained a prize at London last year. I shall refer to this extractor hereafter. For the rest, there were some well stocked hives of Cyprians and Italians in the courtyard, with some well-made portable hives for transporting bees or queens from place to place. There were huge glass bells, nearly two feet high, well filled with comb, very pretty to look at, but not half so practically useful as our honey boxes. This, indeed, the jury fully recognised in their awards to Messrs. Dennler and Neighbour. There were also some ingeniously arranged devices in comb exhibited by Pasteur Rabbow, the bees having been made to build into moulds or shapes, which were afterwards detached, leaving the shapes of comb, like shapes of blanc-mange, on a dish. There were also some capital masks, plenty of good comb-foundation, and a number of hives, the prices of which ranged generally from seven to fifteen shillings, a few fancy hives only being higher in price. The stock of honey and mead in jars and bottles was very large. All this was, however, nothing more than may be seen at any bee show.

The important part of the proceedings were the re-unions, where papers were read and speeches made. The first of these commenced at 10 a.m. on Tuesday, and lasted till 2 o'clock. It was opened by the Burgomaster, who in a short speech addressed the meeting, expressing a hope that the fiftieth Congress might be an international one, as there were few countries which now did not take some interest in bee-keeping. Then admidst the applause of the whole meeting, the delegate of the Minister of Agriculture and Commerce called up Herr Schmidt, of Eichsteid, who is the permanent Vice President of the Congress, and, after complimenting him, decorated him with the order of the Crown, sent expressly to him by the Emperor.

The real business of the meeting then began, Dzierzon, who was most warmly applauded, addressing the Congress at some length. Dr. Dzierzon dwelt on the yet undeveloped state of bee science, and the necessity of close and patient study and watching, as well as practical application, if we would arrive at results worthy of the end at which we strive. "What we know as yet," he exclaimed, "are like a few shells picked up by a child on the sea-shore, which give but little idea of the wealth that the sea contains."

Herr Vogel, whose book on the bee was rewarded with the annual gold medal of the Congress, followed next, taking up the question of a uniform or standard size of frame for all Germany. This has been long discussed, and has resulted in a gradual diminution of the size of frame. The time was thought to have arrived for definite action, and the size of frame was, after long discussions in the Congress, finally fixed at 23½ centimetres (or 9 inches) broad, with a depth of 36 centimetres (or 15 inches) for the body of the hive, divided into two frames, each 18 centimetres (nearly 7½ inches) deep. This hive, however, admits of being built up to any height the amount of honey-gathering justifies. There are usually two rows of ten to twelve frames, or three rows of eight frames, one above the other, in each hive, making from twenty to twenty-four frames of the above size in each hive.

You are aware that in the German hives the frames *always* stand *across* the entrance, not at right angles to it. In this principle they exactly resemble Mr. Abbott's Combination Hive. There was only one German hive in the exhibition which had its frames at right angles to the entrance. And here I may mention a Swedish hive which resembled very much one of Mr. Abbott's Combinations, and which was furnished with a division-board to enable the frames to be put back from the entrance in winter. There was a tunnel leading from the entrance to the division-board, giving ingress and egress to the bees, as for the ventilation of the hive; the space between the end of the hive and the division-board was then filled with chaff well rammed home. This seems to me a capital idea for keeping bees warm in winter.

It is no doubt a great advantage in Germany that practically one size of frame is adopted by all bee-keepers in all parts of the country. I am myself strongly impressed with the practical utility of the German hives. I have this summer been working very much with some which are known as the Baden or Black Forest hives. They seem to me to present some very great advantages, both in regard to manipulation and supering. I am inclined to think that bees also winter very well in them. First, as regards manipulation, the frames being drawn out by a pair of strong pincers from the rear of the hive, a small puff of smoke easily drives the bees downwards to the front, and in this way I really cannot remember ever having been once stung in opening a hive, which I have been doing lately every day; then the frames have only a small bearing at the ends, and are very easily detached from the propolis. Thirdly, the brood is invariably found in the front, and notably the lower front of the hive. In this way, for extracting you may take out the eight upper and four lower frames from the rear, with the almost absolute certainty of finding no brood in them. The frames being of small size, are put at once into the extractor, the honey is taken out, and the frames are replaced in the hive without any derangement of the brood or annoyance to the queen. Then for supering the narrow hive seems to concentrate the heat and send it into the supers, which the bees take to at once, while the broad shallow frames of the Woodbury would seem to fail in this particular. I can only say that two Alsatian gentlemen to whom I gave a number of Mr. Abbott's excellent sectional supers, have been showing me magnificently filled honey-boxes all the summer from their Baden hives, while I never have been able to get a bee to go into mine except for promenade purposes. I am disposed to think, too, that bees winter better in a deep narrow hive. By leaving them a certain number of frames filled to all their depth, the bees need never change from frame to frame, but always keep near their food; and so it comes to pass that after considerable experience, I have come to be very fond of these small frame hives, which are so handy for storing and manipulation. The only modification I should like to make in them would be the adoption of the quilt in winter.

I would now add a few words on Mr. Dennler's extractor. It was exteriorly of the ordinary form, the motive power being placed below the body of the machine, and the center pivot turning in a socket below all; so that all the weight of the frames in the interior rested on the center pivot, and all straining was avoided. The cages for containing the honey combs for extraction are raised about 6 inches above the bottom of the receptacles so as to allow of at least 25 lbs. of honey being extracted without drawing it off. The whole of the appratus for turning is very solid and well made. The cages or receptacles for the combs are three in number, forming a triangle inside the receptacle; and this, I think, is its only fault, for with three frames there is no counter-balance on the pivot, and this must eventually cause an uneven and wobbling motion. It could be as easily made with two or four cages, and it would then be better; otherwise it admits of the frames being reversed like in Mr. Cowan's extractor, which is done by lifting each frame up about a quarter of an inch, turning it, and letting it drop into its place. This action is exceedingly simple, takes no appreciable time to put in motion, and is not exposed to any chance of derangement. As the machine exhibited has extracted nearly a ton of honey this year, its efficiency may be said to have been thoroughly tested and established. It was very greatly admired and praised by Dzierzoo, and many other experienced bee-keepers.

Among other subjects of interest from a practical point of view discussed by the Congress, was that of the use of perforated zinc as a queen-excluder. This was introduced by Herr Gubler, who very clearly explained the great results which might be obtained by the use of it, in reference to the checking of swarming and the production of honey. Several bee-masters followed on this subject, saying that perforated zinc was changing the whole system of apiculture, and the principles on which it was conducted from a scientific point of view. It may be added that the sale of perforated zinc at the exhibition was very large, almost more than that of any article The holes are the same depth as ours, but have a greater breadth, at least one and a half to one of ours.

Professor Donhoff read a very interesting paper on the physiology of the bee, which was warmly applauded. Herr Frey, of Murenberg, did the same in reference to foul-brood, which he treated ably. Herr Deichart, the President of the Society of Apiculture in Hesse, read a paper on "Wintering Bees," the chief practical hint I gained from which was, that it was well not to leave colza honey in a hive for winter, as it crystallised very readily in the hives, and was not made easily available to the bees when in that condition. Herr Schzen spoke on the introduction of Italian and other foreign queens. He appeared to think that the chief advantage gained was the infusion of fresh blood into an apiary, and that this would be as readily effected by any other exchange of queens not necessarily of another race.

The next Congress was then settled to take place at Erfurt in 1881; and either at Buda-Pesth or Frankfort-on-the-Maine in 1882.

There was another point of interest brought out in the discussions. You are perhaps aware that in Hanover, where there is an immense trade in exported honey, the practice is to destroy one-third of the hives every year, and take all the contents. This practice is justified by the people on the ground that they have too many colonies, and that they would be over-stocked with bees otherwise. In fact, they say that in a good year each colony will give three swarms and 100 lbs. of honey. Moreover, they say, by constant renewal of the combs, they avoid foul-brood, and have a much longer and finer race of bees. Pasteur Rabbow violent attacked the whole system as being cruel, unnecessary, and not really economical. Herr Schzen, the editor of the *Hanover Bee Journal*, replied to him: "We are not cruel, but what are we to do with our bees? We have 600,000 colonies every year to dispose of, and if you will come in the autumn, we will only too gladly drive the bees, and sell them to you for a mark and a half (eighteen pence) each colony."

It is a question for our enterprising bee-merchants whether it might be profitable to purchase bees in autumn at this price, feed them for winter, and sell them in spring. It may be observed that Pasteur Rabbow was right, and that by using frame hives and checking the laying of the queen by the use of perforated zinc dividers, the number of swarms might be diminished, and the income of honey increased in proportion. The hives used in Hanover are tall conical skeps, with the entrance near the summit.

The show remained open and the meetings continued daily till Friday, when the prizes were given, the gold medal going with universal applause to Herr Fred. William Vogel, for his recent work on bee-culture; Mr. Dennler and Mr. Neighbour, and one other, receiving silver medals; and many others diplomas of merit.

So ended a very interesting visit, during which I visited also the Industrial Exhibition at Dusseldorf. Perhaps the most interesting part of the exhibition was the pleasure and honor of meeting renowned bee-keepers like Dzierzon and the Baroness Von Berlapsch.

Nancy, France.

Central Michigan Convention.

The Central Michigan Bee-Keepers' Association met in Convention in the Pioneer Rooms of the State Capital, at Lansing, Oct. 7, 1880. President Ashworth being absent, the forenoon was occupied with informal discussion.

At 1 p. m., Vice President D. R. Cole, of Livingston, was called to the chair, and the Convention proceeded to business. The President delivered a short and spicy address on the subject of honey-producing and gave some of his observations during the season. His remarks led to a lengthy discussion of the subject of wintering.

The topic of foul brood was next considered, and as it was reported to exist in the adjoining counties, it awakened much interest.

Prof. Cook said it was really terrible, and that none of us knew its effects. He advised all not to buy bees or queens at a distance; if we did, it might bring on our ruin.

A voice. What is the remedy?

Prof. Cook. Immediate destruction of bees, hives and honey.

Mr. Wood, of Grand Ledge. How do you do it?

Prof. Cook. Take the hive and contents out in a field and build a bonfire.

Inquiry was then made about the Holy Land queen.

Prof. Cook said she was very prolific; that she laid 4,000 eggs a day by actual count, and that all of the workers were uniform and very gentle.

Mr. Waldo, of Grand Ledge, said he obtained a daughter of the Holy Land queen, and crossed her with Italian drones, and thinks he will like the cross for their quietness.

Prof. Cook gave a few incidents from the letters of Frank Benton, which both amused and instructed the members present.

Time was then given for the examination of the supplies, hives and fixtures.

The attendance was large and the meeting passed off pleasantly.

On motion of Prof. Cook, the Secretary was instructed to return thanks to the Superintendent of State Property for the use of the hall, and the attention the Convention received.

Adjourned to May 5, 1881.

GEO. L. PERRY, *Sec.*

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☞ The Rock River Valley Bee-Keepers' Association will hold their annual meeting at Monroe, Ogle county, Ill., on Feb. 8, 1881. The weather was such that our Secretary was not at our last meeting and our Secretary *pro tem* having failed to send in his report, I send the above notice. A. RICE, *Pres.*

What the Press says of the Weekly.

The following notices by agricultural papers will show how the Weekly Bee Journal is received by the Press. They have our thanks.

The American Bee Journal comes to us this week in a new form, and is the more welcome, since it has become a full-grown weekly. Twenty years ago it was started as a monthly and has "stood the storms of journalism unflinchingly," and now starts out as it should have done long ago—a weekly. We heartily recommend it to our readers.—*Patron's Guide*, Boyd Sta., Ky.

T. G. Newman, editor of the Bee Journal, informs his readers. that the bee-keepers' industry has grown to such importance that it now demands and will sustain a weekly publication devoted exclusively to its interest. What a stride in this in the last decade, when comparatively few persons had learned enough about the business to lay aside the old box hive and bee-gum for the movable frame hive. The world moves, however, and it is no uncommon thing to hear of apiarists shipping tons of honey to market, the product of not more than a hundred hives.—*Kansas Farmer*.

That excellent periodical, the American Bee Journal, which has hitherto been published monthly, has been changed to a weekly and greatly improved.—*Pilot*, Marion, Iowa.

The American Bee Journal is decidedly the best journal of the kind published. Every man interested in bee raising should take this journal.—*Journal*, Berlin, Wis.

If you want to know anything in regard to bees, take the Bee Journal. Its pages are replete with information relative to apiculture, and its bright face and tasty make-up commend it to the public at once.—*Ensign*, Moulton, Iowa.

The American Bee Journal, edited by Thomas G. Newman, Chicago, appears for 1881 as a weekly. It is the oldest bee journal in the country, and worthy the support of all bee fanciers.—*Home Journal*, Louisville, Ky.

The American Bee Journal comes to us now as a weekly, and what has heretofore been the leading monthly bee paper, now becomes the leading apicultural weekly, as it is the oldest, in the Union. As it aims to give all the news respecting inventions and improvements in management from all quarters of the globe, its weekly visits cannot but prove valuable to all who are interested in bee culture.—*Farmer*, Denver, Colo.

The American Bee Journal, for twenty years, the leading monthly in America, devoted to apiculture, now becomes a weekly under the management of its veteran editor Thos. G. Newman, Chicago.—*Plain Dealer*, Cresco, Iowa.

The American Bee Journal, is doubtless the best periodical in the country, or in fact the world, which is devoted to the interests of bee culture. It has now been changed to a weekly.—*Times*, Bellow's Falls, Vt.

The American Bee Journal, heretofore the leading monthly bee paper, becomes a weekly in 1881. It is the oldest apicultural journal in America, and is the first and only weekly in the world devoted to bees and honey. We shall take occasion to copy from its very interesting columns occasionally.—*Era*, Chautauqua, N. Y.

The American Bee Journal, heretofore a monthly, becomes a weekly in 1881. Those of our readers who wish the best bee journal will do well to subscribe for this one.—Pulaski, N. Y. *Democrat*.

The initial number of the Weekly American Bee Journal is before us. The change from a monthly to a weekly is a great improvement, and everybody interested in bees ought to have it. It contains even more than its usual amount of interesting reading matter. —*Eagle*, Union City, Ind.

The American Bee Journal is now published weekly, and is full of news about bees, honey, and other good things. No farmer who has bees should try to do without it.—*Western Agriculturist*.

The American Bee Journal comes to us in a new form. Heretofore a monthly, it appears weekly and will continue to take a lively interest in all wise efforts looking to the advancement of the art and science of bee culture. We predict for it success in its new form, under its enterprising editor. —New Bedford, Mass., *Standard*.

The American Bee Journal is the oldest periodical published in America, devoted to the scientific management of the honey bee. Every person who keeps bees should subscribe for the above named journal, and see the progress that has been made in the management of bees.—Latrobe, Pa., *Advocate*.

The Bee Journal is the oldest apicultural journal in America, and is the first and only weekly in the world, devoted to bees and honey. We should like to see every one in Hobart who owns bees take it.—*Journal*, Hobart, Ind.

The December number of the American Bee Journal closes the twentieth year of its prosperous and useful existence. So prosperous has its career been that its enterprising publisher will celebrate, by hereafter issuing this publication as a weekly. This will commence a new era in bee journalism, and it cannot be entrusted into any hands with greater certainty of success than with Mr. Newman.—*Standard*, New Bedforn, Mass.

The American Bee Journal, published by Thomas G. Newman, at Chicago, which has heretofore been issued monthly, will be twenty years old January 1st, and will from that date be issued weekly. It is exceedingly valuable to bee keepers.—*Iowa Homestead*.

The American Bee Journal is the standard authority on the care of bees, the sale of honey, etc.—*Local*, Silver Creek, N. Y.

The American Bee Journal, the leading and truly valuable publication now makes its appearance as a weekly instead of a monthly. The initial number is now before us. The monthly has been recognized as the very highest authority on apiculture for upwards of twenty years. It is published by Thos. G. Newman, of Chicago, whose reputation as a successful bee culturist is well known in this country and across the sea. To every one interested in apiculture, we say subscribe for the American Bee Journal.—*Sentinel*, Carlisle, Pa.

The American Bee Journal is twenty years old, and stands at the head of American journals devoted to the bee interests.—*Farmers' Review* Chicago, Ill.

Intelligent bee-keepers will be glad to know that the American Bee Journal, the first paper established in this country, especially devoted to bee culture, (founded by the late Samuel Wagner of good memory) is, with the beginning of the new year, to be published as a weekly. Every progressive bee-keeper should have this paper.—*Home Farm*, Augusta, Maine.

The American Bee Journal, heretofore the leading monthly bee paper, becomes a weekly in 1881. It is the oldest apicultural journal in America, and is the first and only weekly in the world, devoted to bees and honey. It has been published for twenty years, and its old patrons, to whom it has long been a guiding-star, as well as its thousands of new readers, will together hail this new departure of the Bee Journal with joy.—*Patriot*, Concord, N. H.

The American Bee Journal is the leading periodical on bee-culture of the United States. It is neat, typographically and otherwise, and is edited by a gentleman who understand his business. We wish it abundant success.—*Patrons' Guide, Ky.*

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both :

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
Bee-Keepers' Magazine (A.J.King)	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
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Honey and Beeswax Market.

BUYERS' QUOTATIONS.

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HONEY.—Light comb honey held at 18@20c. in 1 and 2 lb. sections ; in larger packages, 15@16c. ; dark, 12@14c. Extracted, 9@10c.

BEESWAX.—Choice yellow, 20@24c; darker, 15@17.

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January 7, 1881.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Feb. 2—Northeastern, at Utica, N. Y.
8, 9—Ashtabula Co., O., at Andover O.
W. D. Howells, Sec., Jefferson, O.
April 5—Central Kentucky, at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 18—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

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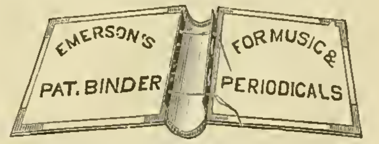

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SPECIAL NOTICES.

☞ Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

☞ We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

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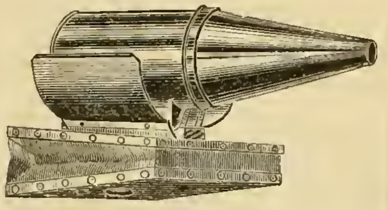

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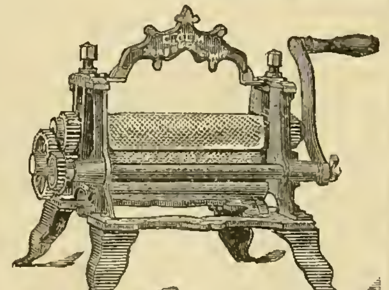

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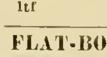

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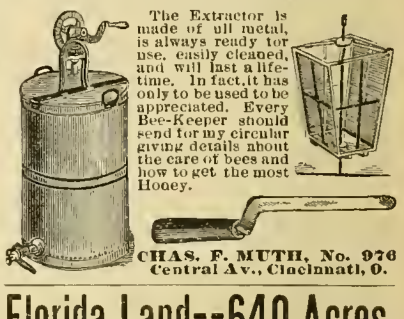

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DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., FEBRUARY 2, 1881. No. 5.

THE AMERICAN BEE JOURNAL

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THOMAS G. NEWMAN,

EDITOR AND PROPRIETOR,

974 WEST MADISON ST., CHICAGO, ILL.

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CORRESPONDENCE.

For the American Bee Journal.

Hive and Section Making.

JAMES HEDDON.

I choose the above subject knowing that it is a practical one, and one of much interest and importance to bee-keepers. I shall state only what has been my experience and observation. You will bear in mind that I speak from my side of the question, and that I am aware that I may be mistaken in many points, yet I believe that any one's honest opinions, formed from long experience and close observation, must in the main be of value to some readers.

LUMBER FOR HIVES.

Here we have nearly all the kinds suitable for their construction—pine, basswood and whitewood. I supposed for years that pine was the most durable of these woods, especially if exposed to the weather *without paint*. Closer observation has convinced me that whitewood is superior to pine for endurance, whether painted or not, and also that it takes and holds paint much better, because the oil does not soak into the wood as it does into pine, but remains outside and dries with the paint, into a perfect gloss. In regard to painting, the same may be said of basswood, but *it* decays readily if not painted. Whitewood and pine decay very differently—whitewood all on the surface, pine not so at all, but through-and-through the board in streaks. Basswood makes a hive unexcelled, if *always* kept painted. All these woods are good enough, and I do not hesitate to use any and all of them; the difference is so small I do not consider it, as I always keep everything well painted.

PAINT.

I had supposed that white lead was the best paint, but such is not the case. The cheaper mineral paint out-wears it nearly two to one. So do the prepared paints in pails, though they are not equal to the cheap mineral paints. Of these the Venitian red stands at the head. Next, the French yellow ochre. This is the paint I use for hives, rather than the red, on account of its color being lighter and not so heat-absorbing. For winter boxes I use the red, for reasons above given.

CONSTRUCTION OF HIVES,

or what hive to use. This has been the question of questions with all beginners. I prefer a top-storing hive *exclusively*. To me, an argument in favor of side-storing is an admission that the shape or construction of the hive of the advocate, is faulty. The Langstroth frame seems to me to be the best size and shape to give us the most advantages. I differ with many as to the number of these frames per hive, or, in other words, the proper size of a hive. I believe, with very many of our most successful producers, that small brood chambers are best, consequently I discarded two of the frames of my old standard Langstroth, and use an eight-frame hive exclusively.

The porch I found not only extra labor and material, but too much of a spider's home, or saloon for idle bees. I have also discarded that. I prefer a tight bottom-board, nailed, and hermetically sealed by the bees. It is not only much more secure against the bee-moth larva, but the convenience of moving and the solidity of the hive are important features in its favor. If our bees come out strong in the spring, they can clean out their dead and do it much cheaper than we can; if they are weak, the frames should come out any way and their brood, honey and general strength be looked to.

I prefer a light, single-wall hive to any filled with chaff or other material, for I find that if we pack our bees we will use a box, and do it more efficiently than the filled hive will admit of. These filled hives are a kind of sacrifice between a summer and winter hive. They are like a rifle-cane, or jack-knife, cork-screw, screwdriver and toothpick combined—a thing never to become staple. They have objections that though theory may overlook, practice discovers at once. They are too thick and clumsy for summer, and too thin and cold for winter.

Now, in regard to the surplus story of the hive, let us consider that under the head of

SECTIONS.

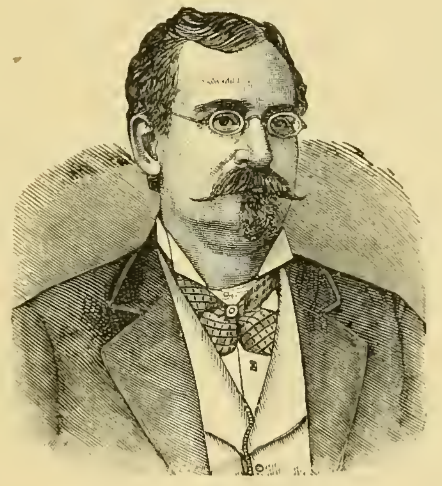
How to adjust them to the hive, what size and shape to use, and how many per hive, are the important questions. The method of adjusting that will give us the *cleanest* frame and cleanest honey, with the least labor, is my choice always. There are many good methods used, and thought the *very best* by numerous advocates, so I will pass on without further comment.

The size of the section is a matter of considerable importance. If it was not such a sin and sign of weakness to acknowledge a mistake, I would say that I believe the 1 lb. section is going to force its way to the front. All honor to the judgment of Mr. A. I. Root in this regard. Mr. W. M. Hoge says to us from England: "It is with the greatest imaginable reluctance that I announce my despair of there ever being a satisfactory traffic in 'prize' or the section honey. If they could be distributed everywhere, with the combs safe and sound, they would be the most salable article ever introduced to the grocery trade, but to deal in them now is to live in a perfect atmosphere of complaints."

Now I feel that honey stored upon full sheets of properly made foundation, in 4¼x4¼x2 inch (1 lb.) sections, will go to England, and then all over the British Isles, if handled with any kind of skill and care. I speak from a few years' of experience with just such an article, and I feel that they settle the problem. They will "knock the bottom out" of the foreign traffic in comb and liquid in glass jars, just as the "prize" and larger sections and boxes "played them out" here. I pack these little solid fellows in glassed cases of 12 sections *only*, *never* glassing the honey.

I use 5x6 sections of 2 lbs. each in my out apiary, and I glass a part of the bright crop only. I use just 5x6 rather than 5¼x6¼, because I prefer glassing entirely on the outside of the frame or section, believing, as I do, that this is the coming method. Of course, we must not be forced to buy fractional sizes of glass, that being poor economy. I put it on the outside, because we can glass nearly every comb where no separators are used in storing, and these separators cost me too great a portion of my surplus crop, to say nothing of their *first* cost and trouble of manipulating. I cannot be too enthusiastic in urging the use of handsome sections, and cases put on the market in the brightest and cleanest shape possible. Dovetailing is now done for just about the cost of nails to nail "prize boxes," and there is more than a dollar's difference in the labor of making up, in favor of the dovetailed section. I object to the all-in-one-piece section, and do not use them because of that naughty little sharp corner, that is always catching and causing the next section to leak, when raised up and pushed down into the case; also, because they are too liable to break, both at the time and after bending, and are not so true and solid as good dovetailed work. I find that by the use of proper methods of adjusting sections to the hive, and proper care after so doing, there is no need of those nuisances called separators.

Dowagiac, Mich., Jan. 13, 1881.



The Editor of the American Bee Journal.

For the American Bee Journal.

Bee House—Holy Queen, Etc.

MELVILLE HAYES.

I have twenty colonies in good condition, mostly in Langstroth hives. I fed 306 lbs. of best "A" sugar; use a cushion made of two thicknesses of coffee sacking with a layer of cotton between, nicely quilted, laid on top of frames; half inch strips to keep the cushion from coming down too close on top-bar leaving just room for bees to pass over the top of frames. Have all my bees in a house constructed especially for the purpose at a cost of about $200. I may describe it to you some time. I know there is some prejudice against "bee-houses," but mine is a success.

I have two imported queens and one Holy queen. This queen I obtained from Mr. Jones at the National Convention. I doubled two reasonably strong colonies, deprived them of their queens for 24 hours; then caged my royal lady; placed her on top-bars for 8 hours; and sprinkled bees and cage thoroughly with syrup, scented with peppermint, and then after the bees had become quiet, say half hour, opened the hive very quietly and let her go—it was a success. Two weeks later I let a friend have the queens out of two other hives and doubled the bees in with my "Holy" queen, following the approved methods, together with some of my own notions that never have been approved, but "all 's well that ends well." To-day I opened the hive and found brood in all stages from the egg up, in six frames. She can out lay anything I ever saw, and her bees are remarkably quiet and perfect beauties.

There has been fearful mortality among bees in this county. Here is a partial list. J. B. lost 17 out of 20; N. S. lost 20 out of 27; G. E. S. lost 5 out of 8. These are the worst I have heard of, but from all I can learn I think at least one-half of the bees in this county are now dead. What is the cause? I do not know, who does?

Wilmington, O., Jan. 3, 1881.

For the American Bee Journal.

Covering Bees with Snow.

G. M. DOOLITTLE.

The question is frequently asked, "Shall I cover my bees with snow?" and the answer is invariably given, "Yes, the more snow the better." Our experience has been that if snow is banked two-thirds the way up the brood chamber, it is a great advantage; but if the hives are covered two-thirds the way up the cap, or completely over, it is a positive damage to the bees, and worse than no snow at all. Up to the winter of 1872-3 we had always wintered in the cellar, and not being as successful the previous winter as we desired, we concluded to winter on the summer stands, and, as the snow fell, sweep it up around them. We did so, and by December 10 our hives were covered from sight, while the pyramids of white snow all over the yard made a very picturesque view which was quite enchanting. At the end of a month we had a thaw, when we looked at them, and found that the warmth from the bees had so thawed the snow that a small dog could easily go all around between the hive and the snow. We were highly elated over our success, and concluded that was just the way to winter bees. We found, however, that our bees were very restless, and, upon raising the quilt, were ready to fly out and perish on the snow, instead of being quiet as all good bees should be. As the next day was fine, they had a cleansing flight and all appeared well. We had little or no snow the rest of the winter, and when the season fairly opened we found that we had 29 colonies left out of 52. This loss we laid to the severe cold during April and the fore part of May, and believed that if we could have had snow to cover them all winter no loss would have occurred. One thing we noticed, however: all the hives we opened at the time of the thaw had brood in from two to four combs, while in April scarce a bit of brood was to be found in any hive. Of course we reasoned that had the snow continued, brood-rearing would have been kept up, and in the spring our hives would have been teeming with thousands of young bees, instead of depopulated colonies, as we then had. The next winter put an end to these visions however, for this time we had snow to keep them covered from Nov. 20 to April 10. During the fore part of February there came a warm day so our bees flew finely, and upon examination we found several hives that had brood in five frames to the amount of 50 square inches to the frame, or 250 square inches in all; while others that were not buried so deeply, did not have over from 20 to 50 square inches. We noticed that the bees in those hives which had the most brood were so heavily loaded with feces that they were scarcely able to fly, while those with but little brood spotted the snow but little in comparison with the others.

However, we figured the 250 square inches of brood at 50 bees to the inch, and looked very wise when we told our neighbors that such a colony would hatch out 12,500 bees in 21 days, and that we expected a rousing colony by spring. Cold weather with more snow came and held so till the middle of March, when we again had a day the bees could fly. Our bees were all shoveled out, and we expected to see plenty of those 12,500 young bees on the wing; but upon going to the hives our spirits were heavy to find all the old bees dead on the bottom-board, and those young, downy bees clustered closely together near where they had hatched, in the embrace of death. Not only this, but the old bees had consumed nearly all the honey in rearing these bees, so we had nearly a total loss, except the combs. When the working season arrived, we found we were again reduced to the number of 29 to start the season with.

The difficulty seems that as soon as the hives are covered with snow, the warmth of the ground combined with the warmth of the bees, makes it so warm that the bees become uneasy, go to breeding, consume large quantities of honey, thus distending their bodies and using up their vitality, causing them to die of old age during February, March and April, while the young bees have not the usual strength and vitality of bees hatched in September and October to withstand the rigors of winter, and thus comes spring-dwindling.

Two years ago, it will be remembered, we wrote that the snow was 11 feet deep over a part of our bees. We tried as far as possible to keep the front side of all we could, shoveled clear; but we completely lost track of about 10 of them, and of the 10 not one was living the 1st of May. This in short has been our experience with bees buried in snow. With chaff hives the results are not so bad, still we would rather have none at all than to have these covered 2 feet deep with snow.

Borodino, N. Y., Jan. 18, 1881.

For the American Bee Journal.

Successful Apiculture.

DR. S. STEVENSON.

If one should form his judgment of apiculture from some of the articles which he finds in the newspapers, he could hardly resist the conviction that to invest in bee-keeping, would, without a shadow of doubt, be to secure financial success. Practical, cautious and skillful apiarists in all countries know the case to be very different. There are certain fundamental principles which must be carefully heeded, if the apiarist would be successful.

First, the bee-keeper must be adapted to the business or else he need not expect to succeed, if he does he will be dissappointed. He must not only be adapted to the business (that is, made out of the right kind of stuff), but he must study the subject patiently, thoroughly and persistently.

This business requires constant study. No person should expect to succeed in the management of bees if he is unwilling to attend to them. They will suffer from neglect just as promptly as domestic animals or crops of growing grain on the farm. The man who will purchase a number of colonies of bees, set them up in some out-of-the-way place and give the matter no further attention, should keep out of the business altogether.

Second, without an accurate knowledge of what should be the condition of a prosperous colony of bees at different seasons of the year, the keeper will be unable many times to decide positively whether anything is going wrong or not. The bee-keeper who is not fully resolved to get well acquainted with his little workers and to know as far as possible their nature, habits and peculiarities; neglects his best interests. Bees require prompt and scientific attention, and if the apiarist is unable or unwilling to render it, his enterprise will be an unprofitable one.

Mr. C. B. Smith, of Leslie, stated in the Convention last year at Jackson, that he thought bee-keeping no more uncertain than raising wheat or stock; so I think. A farmer who is ignorant of the composition and properties of the soil he is trying to cultivate, of the different kinds of grain he raises, and who has no very definite notions of the distinguishing properties of the different manures in use, and, last but not least, who executes his farm work in a careless and slovenly manner—his success will be no better than the average bee-keeper. In the language of another, "the success of a farmer depends on his understanding and complying with the principles on which God bestows a harvest." Just so with apiculture; if we would be successful we must get acquainted with first principles.

We want to get rid, as soon as possible, of all notions about "luck." Every effect has its specific cause, and it is our business, and to our interest to search it out. We must make all our arrangements and be ready for the honey harvest. Mr. Doolittle says "that a week's delay in starting, often makes the difference between a good yield and no yield at all."

See to it that all colonies are strong in numbers and in all respects in good condition. This cannot be effected without intelligent and unremitting attention. This suggestion of Mr. Doolittle was brought forcibly to my mind, one day last summer, by the remarks of a young man (son of a bee-keeper in my vicinity) who was examining my apiary. He said that "dad was going to put boxes on his hives as soon as he could get round to it." It was about July 12th then. The basswood honey had almost entirely disappeared; the white clover had produced nothing worth speaking of, and the result was that his honey crop was almost a failure. We must remember that a peculiar combination of circumstances and conditions conspire to produce a good flow of honey, and if we wish to profit by it, we must be up, dressed and ready for business.

Lastly, we must make every effort to secure our product in a neat presentable and inviting shape. If this last point is carefully attended to, we shall have but little trouble in securing a sale for our product.

Honey has now taken its place as one of the staple articles of consumption. The fluctuations in price are no greater than that of other articles of food.

Morenci, Mich., Dec. 3, 1880.

For the American Bee Journal.

A Good Shade for Bee Hives.

L. JAMES.

As many persons have not the advantage of shade trees to protect their hives from the hot sun in June and July, I will describe, for their benefit, a plan I have tried during the last two seasons with satisfactory results.

The ground was made level and freed of grass and weeds, and the hives placed in rows about 8 feet apart. Between these rows a narrow strip, not over a spade in width, was turned over and in them sunflower seeds were planted early in the season (as the young plants will stand considerable freezing). As they increase in size they were gradually thinned out to 3 or 4 feet apart, always leaving the thriftiest. And the under leaves and branches on these were pruned off to make it convenient to get around among the hives. The ground was kept clean of grass and weeds by scraping them off with the hoe. In our soil, here in central Illinois, the plants grow from 8 to 12 feet high with large substantial stalks. A person who has never used them for this purpose will be surprised at the beautiful sight it presents in June and July, giving ample shade, and furnishing good clustering places for the swarms, easy of access in hiding. The numerous large flowers furnish pollen in abundance, and some honey, and the seeds are good rich food for poultry.

Atlanta, Ill.

For the American Bee Journal.

Bee-Keeping in Northern Indiana.

JOHN CRAYCRAFT.

There are very few persons that keep their bees in a scientific manner, or with that care and attention that will bring them success, hence it is only chance-work with many of them. There are a variety of movable-frame hives used here, and many box hives are still in use, which are about as good as any for those that scarcely ever open and look into their hives, and so little care is taken of them that they know comparatively nothing of their condition.

I have made inquiry of a number of persons having bees, and nearly all report their bees as dying or dead. The past was a very poor year for honey, and bees gathered but little, only during the poplar (tulip tree) bloom, the first and second weeks in May. Many divided their bees then, in anticipation of a good season, and now their bees are about all gone, through their neglect to feed them sufficient at the proper time to keep them until spring, thinking they could feed them any time with safety. I find it is almost certain death to the bees to attempt to feed them in cold weather, more especially in such a winter as this has been thus far. They have been confined to their hives since the 1st of November, and from present appearances they will be in another month, during which time most of them will die for want of food.

I have my bees all in double-wall (Langstroth frame) chaff hives, reduced to about 6 frames, cushioned on each side, and the hives filled on top with dry planing-mill shavings, set on sawdust, and banked around with the same as high as the brood chambers. They are put away with sufficient stores to supply them until the 1st of March, but the quality is not as good as I would have liked, being mixed too much with the juices of peaches and apples

Salem, Ind., Dec. 29, 1881.

For the American Bee Journal.

How my Bees are Wintering.

H. R. BOARDMAN.

I have perused the third number of the Weekly BEE JOURNAL. I think I am justified in saying that it is an important move in the interest of bee-culture. I will acknowledge that I felt somewhat disappointed and indignant when I received the first number, for I was very much attached to the old AMERICAN BEE JOUNNAL out of which I had learned so many good things, and it seemed almost like bidding good-bye to an old friend.

But I am more than compensated for the disappointment in being able to hear from my bee-keeping friends all over the country each week, and all about how their bees are wintering during these long cold winter spells. It is like a continual feast to be in weekly communication with our brother bee-keepers. And here I am reminded that perhaps others might take the same pleasure in reading my report.

I am wintering something over 200 colonies in two bee-houses, about one mile apart; the one at home has 140 colonies in two rooms, 10x19 feet each. The temperature has averaged a little less than 40° above zero. Many of the colonies were light; they were put in just about the middle of November before the cold weather set in. I visit the bee-rooms each day and make a record of the temperature, condition of the bees, &c. I raise the temperature a few degrees once in a week or 10 days, if very cold, by means of artificial heat. My bees have been very quiet up to date and are in perfect condition.

I feel much confidence in my ability to solve the wintering problem and make the wintering of bees successful, attended with no more risk than the wintering of other stock.

East Townsend, O., Jan. 26, 1881.

For the American Bee Journal.

The Season and Wintering.

JOHN F. COWAN.

The spring and early part of summer were unfavorable for bees in this part of the county; there was an abundance of fruit blossom (I think that I never saw the equal before); considerable white clover blossomed, but neither seemed to yield any honey. Our bees were in a starving condition from spring till the middle of July. Soon after which the smart weed began to bloom, and the bees commenced breeding and gathering honey very rapidly.

We had 28 weak colonies of bees to begin the season with, from which we obtained 500 lbs. of nice extracted honey and increased to 62 fair colonies.

We have our bees well packed for winter in chaff-hives, with plenty of stores. I believe that chaff-hives on the summer stands is the best and most convenient method of wintering, and bee-keepers are drifting into that method of wintering.

I am following farming as a business now, but expect to make bee-keeping a specialty in a few years. I am a subscriber to the JOURNAL and do not think that any bee-keeper should do without it, as it treats on every subject which is of interest to bee-keepers generally. So long life to the Weekly BEE JOURNAL.

Wellington, Ill.

SELECTIONS FROM OUR LETTER BOX

Tenement Hives for Wintering.—My bees are in good condition so far. I have 35 colonies in the cellar; they are all very quiet. I have 25 colonies packed in chaff that are wintering very nicely I have 3 in chaff tenement hives, that I think are doing the best. I have wintered for two seasons in the latter, and like them very much. They seem to be proof against spring dwindling and swarming out. Is there such a patent hive as "Torrey's"? He says he had it patented 10 years ago. I thought that there were but a few patent bee-hives now. All hail the Weekly BEE JOURNAL.
Athens, Maine. WM. H. GREEN.

[Probably Mr. Torry has a patent on his bee-hive; no, indeed, their name is "legion." They are almost innumerable—and the patented features are usually the most useless or objectionable.—ED.]

Winter in Texas.—We have had the most winter—most cold—that I have ever seen in Texas, and it hurts worse here than in your country—the sudden changes—here, one day bees will be flying nicely, sun shining brightly. Elm buds begin to smell and the people begin to think of putting their ground in order for another crop when suddenly. in 20 minutes, it will be freezing cold. The thermometer only a few days ago ran from 60° to 30° f. inside of 30 minutes, a cold northwest wind, called "Northerners" or "Northers." We have had more sudden changes this winter and last fall than ever known to the oldest inhabitants or for the last 35 years. I wish the new departure, giving us a weekly AMERICAN BEE JOURNAL, all the success that its editor could anticipate. We hail it with joy.
WM. R. HOWARD
Kingston, Texas.

Satisfied.—I am certainly under many obligations to Prof. Cook for the good report he gave in the BEE JOURNAL of the queen I sent him. I have not another word to say about it.
D. A. PIKE.
Smithsburg, Md., Jan. 24, 1881.

Bees Uneasy.—My bees are getting uneasy and begin to show signs of dysentery, and unless there comes a warm spell soon, many will be lost. They come out at all times of the day and fly off, never to return. Why they do so, I am unable to find out. The hives are dry and clean, well packed in chaff as Prof. Cook directs in his Manual. They have plenty of honey and pollen and the reason may be that there is too much pollen. I have 6 tenement chaff-hives, with 4 colonies in each, and 11 of Root's single chaff-hives, also, a lot of Simplicity and Langstroth hives packed by Cook's method. Thus far the tenement hives keep bees in the best order. The combs run parallel to the entrance.
B. F. PRATT.
Dixon, Ill., Dec. 28, 1880.

Alsike Clover.—I think the article on alsike clover, in the first number of the Weekly BEE JOURNAL, will be a great help to get the farmers about here to sow it, for red clover kills out here in an open winter. I think the alsike will do better. A neighbor has a few acres and he says he was not troubled with it heaving out in frosty weather; he says it makes the best of hay. I have long been anxious to try it, but have no place where I can give it a fair trial, and so far, have not been able to get any one else to try it. I go into winter quarters with 89 colonies, mostly black bees, in good condition for winter, in chaff-packed hives. Our season here for 1880 has been the poorest for 5 years. I obtained about 4,500 lbs. of comb honey from 80 colonies in the spring, and increased to what I now have, besides I have done some work for next year; so I have no reason to complain.
G. W. STANLEY.
Wyoming, N. Y.

Foul Brood.—I have lost 100 colonies during the past 2 years by that terrible scourge—foul-brood. I have about a dozen colonies left in my cellar in good condition, and think I have mastered the disease now. If I can till up my apiary in the spring, I intend to regain what I have lost. WM. DYER.
Hastings, Minn.

Much Loss Expected.—Bees that were not sheltered during our recent cold weather will perish; and colonies will be scarce here next spring. I have 25 colonies in the celler, covered with wool cushions, and 2 buried in the ground. All seem quiet. I wish you much success with the Weekly BEE JOURNAL.
Waterloo, Wis. E. BUMP.

Northern Michigan for Bees.—There are many peculiarities about this part of Michigan, and it was thought until quite recently that bee-culture could never be a success in our country; but one enthusiastic bee-keeper, with the aid of your most valuable JOURNAL, has established the success. The gentleman to whom I refer is Mr. G. O. Grist, of Northport, who has a fine apiary in a flourishing condition. I have about 30 colonies, which are of his stock, and are wintering well. Our honey crop last season was light, owing to dry weather. The wild asters, golden-rods and white clover, are our best honey plants, although we have many others. I wish you success with the Weekly BEE JOURNAL.
Omena, Mich. J. P. GREENE.

Likes Chaff-packing Best.—I have in winter-quarters 53 colonies; 46 in chaff on summer stands and 7 in cellar. My experience so far is in favor of chaff packing, especially in an open winter. The season has been poor in this vicinity both for increase and honey. I have the black, Italian and hybrid bees, but desire another season to stock my apiary with either Italians or Cyprians. I desire your candid opinion which would be best. I cannot do without the BEE JOURNAL. C. S. INGALS.
Morenici, Mich.

[The Cyprians as yet are not sufficiently tested to give an opinion. The Italians when bred to their best qualities are good—and may or may not be eclipsed by the Cyprians.—ED.]

Poor Results.—Last season I commenced with 16 weak colonies which dwindled down to almost nothing, so that it took all the spring to build them up to fair colonies. I increased to 29 and obtained about 750 lbs. of honey. The season was too dry the nights, were too cold, and there seemed to be no nectar in the bloom. Success to the Weekly BEE JOURNAL. HIRAM RICHEY.
Sing Sing, N. Y.

Italian vs. Black Bees.—A weekly journal is what we all need and especially those of us who are young in the business. I have been handling bees three years; I have not done a large business but have made it pay. I have now 11 colonies all snugly packed with buckwheat chaff, taking their winter nap. Five colonies are Italians, which outstrip the natives in obtaining honey, until buckwheat bloom, of which we generally have abundance; then our black fellows bring in the most honey. Nothwithstanding this I much prefer the yellow or Italians, for reasons I shall not now give.

Last season was not a good one here for honey, 52 lbs. was the largest amount I obtained from any one colony. This was comb honey. I have sold nearly all my crop here at 18 to 20 cents per 4¼x4¼ section. I wish the Weekly much success. J. W. CARTER.

Four Months' Confinement.—Bees in this section have not had a single flight since the last days of October, now nearly 3 months and they are liable in this climate here to be kept in-doors for 2 months longer. Hope the result will not be disastrous, but am a little afraid. O. O. POPPLETON.
Williamstown, Iowa, Jan. 25, 1881.

Not very Encouraging.—I have been a constant reader of the AMERICAN BEE JOURNAL for several years past and do not think I could well do without it. However, I want to suggest a little improvement that would add much to the convenience of reading and handling, that is to have the edges cut and paste the backs like the *Standard* and *Farmers' Review* of Chicago. I had one swarm last year from 22 colonies, and 20 lbs. of surplus; not very encouraging, but I want to try again. I have my bees in the cellar where it is total darkness and I shall leave them there until April; the entrances are open which keeps them as quiet as so many flies. I have wintered them in this same cellar for years, without loss. I hope that we may have a good season in 1881, and that the JOURNAL will meet with much success in its "new departure."
J. M. A. MILLER.
Galva, Ill., Dec. 31, 1880.

Not Discouraged.—I did not realize anything from my bees last year and they only have honey enough to keep them this winter. I am not discouraged however, but hope for better things another season. My best wishes for the prosperity of the Weekly BEE JOURNAL. I know it will be good, in any form, as long as we have the present editor and proprietor. J. A. AUSTIN.
Huntsville, Ala.

Good Enough.—I have made $25.00 profit, per colony, this season, rearing "dollar" queens for sale. Perhaps some would like to know how it was done. If any of the breeders who rear high-priced queens only, have made more than this per colony, this season, let us hear from them.
W. Z. HUTCHINSON.
Rogersville, Mich.

What ails my Bees?—Last spring I formed a nucleus, by taking 3 frames out of an old hive with which to start it. They did well, filling all the frames (Langstroth) and are nearly all full at present. But for the last two or three weeks they are dying at a fearful rate. I opened them this morning Jan. 4 (the thermometer at 50° above zero) and I find hundreds of them dead—sticking to the comb. I find also near one corner of the hive some combs that are mildewed. This is on the combs I had taken from a hive in which the bees had died. Is there any remedy? If so, please give it. My bees that are not troubled as aforesaid, are flying as though they meant business for the balance of the winter. H. B. MAY.
Oregon City, Ore, Jan. 3, 1881.

[The bees sticking to the combs became separated from the cluster, for some cause, and chilled. Had they died from age or disease, they would mostly be on the bottom-board. The mildewed combs better be given one each to your stronger colonies.—ED.]

Opinions concerning the Journal.

I like the change from a Monthly to a Weekly paper, made by you, of the American Bee Journal. Will you allow me to give a suggestion, it is this, run the paper through a sewing machine to bind it, it will not take long, about 500 could be run through in an hour.
J. W. H.

I have received the Weekly Bee Journal. I think it looks splendid. It is the "boss" bee paper. Success to it and its editor. EDWARD B. BEEBEE.

I would like to add my feeble voice in praise of the Weekly Bee Journal. No bee-keeper that is alive to the business would do without it.
ALBERT E. FOSTER.

I am much pleased with the Weekly Bee Journal and trust it will prove as profitable to its publisher as I am sure it will be to the progressive bee-keeper.
E. T. FLANAGAN.

I wish you every success with your Weekly enterprise and hope that you and I will live to see a "daily."
G. STURGEON.

I can never express how much I value the Bee Journal. I am proud to say that this is the third year I have taken it. Each number I value most highly—number me among your subscribers.
ST. JOHN T. MOORE.

I have received the three first numbers of the Weekly Bee Journal. I like it very much, in fact I do not see how a man can be successful in keeping bees without it. Best of all is we can have it weekly. DAVID ARTER.

Convention Notices.

☞ We have accepted an invitation to attend the Ashtabula County, O., Convention, which is to be held at Andover, O., on Tuesday and Wednesday, Feb. 8 and 9, 1881. On the evening of Tuesday, the 8th, we have engaged to deliver a public lecture on "Bees and Honey." There being a large number of bee-keepers in that region, we expect the meeting will be very largely attended. All interested will please notice the date—as it has been changed.

☞ The annual meeting of the Southern Michigan Bee-Keepers' Association will be held in Battle Creek, Mich., on Wednesday, Feb. 9, 1881, at 10 o'clock a. m. B. SALISBURY, *Sec.*

☞ The Nebraska Bee-Keepers' Association will hold their Annual Convention, on the 10th and 11th of February, 1881, at Plattsmouth, Cass Co., Neb. Western Iowa bee-keepers are cordially invited to attend.
HIRAM CRAIG, *Pres.*

☞ The Rock River Valley Bee-Keepers' Association will hold their annual meeting at Monroe, Ogle county, Ill., on Feb. 8, 1881. The weather was such that our Secretary was not at our last meeting and our Secretary *pro tem* having failed to send in his report, I send the above notice. A. RICE, *Pres.*

☞ The Marshall County, Iowa. Bee-Keepers' Association will meet at the Court House in Marshalltown, Iowa, on Saturday, Feb. 5, 1881, at 1 p.m. Subject for discussion: "Winter care of bees." J. W. SANDERS, *Sec.*

☞ A Bee-Keepers' meeting will be held at Walnut Hill, Barren Co., Ky. on Saturday, Feb. 12, 1881. All are invited. H. C. DAVIS, *Sec.*

☞ The Northeastern Bee-keepers' Association will hold their Eleventh Annual Convention, in the Common Council chamber, at Utica, N. Y., on the 2d, 3d and 4th days of February, 1881. The Executive Committee are determined to maintain the high standing the Association has justly gained in the past, and propose to out-do all former efforts at the coming Convention. Essays or addresses are expected from Capt. W. F. Williams; Prof. J. Hasbrouck; Mrs. Frances Dunham; James Heddon; Chas. Dadant; H. A. Burch; Jno. Y. Detwiler; C. P. Dadant; A. G. Thurber; W. A. House; A. J. King; Julius Hoffman and others.

A gold medal will be awarded for best essays, on the following subjects: "The different races of bees and their crosses," "Wintering bees," "Marketing honey," "How can we make the apiary the most profitable?"

For best essay upon any subject outside of those mentioned, one tested Cyprian queen, donated by L. C. Root.

Diplomas will be awarded for best display of implements; the best comb foundation for brood-chamber; for surplus boxes; best honey extractor; best bee smoker; for the most practical bee hive.

One dollar each, for the best crate of honey in the most marketable shape, and for the best package of extracted honey.

For the neatest and best honey crate and section boxes (cost, quality and finish to be considered), one tested Italian queen, donated by Geo. W. House.

All are invited to send implements for competition or exhibition. Articles sent to the Secretary will be sold or otherwise disposed of as the owner may direct. It is desired that all articles sent be the same as kept in stock, or forwarded to purchasers
GEO. W. HOUSE, *Sec.* L. C. ROOT, *Pres.*

For the honor of the fraternity in New York, we hope that the friends of truth and justice will be present at the above meeting. The very unjust resolutions, passed a year ago, should be rescinded and thus in a measure blot out the disgrace which now attaches to the last North Eastern Convention. Many were indignant at the matter then, and we hope they will make an effort to be there, to assist in "making the crooked things straight." We do not imagine that it will be difficult, for some of those who were interested in passing them, if we mistake not, will *now* labor to have them reversed.—ED.]

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR.

CHICAGO, ILL., FEB. 2, 1881.

☞ This Number of the BEE JOURNAL, being the first issue of the Month, goes to all our subscribers—the Monthly and Semi-Monthly, as well as the Weekly.

☞ The *Michigan Farmer*, a first-class agricultural paper published at Detroit, Mich., says: "The AMERICAN BEE JOURNAL is now published weekly, and is very acceptable in its new form."

☞ Mr. W. J. Davis, of Youngsville, Pa., like all bee-keepers, is an enthusiast. The Warren, Pa., *Mail* of Jan. 18. gives him the following notice: "Our friend, W. J. Davis, Esq., of Youngsville, was up the other day and made us a pleasant call. It is always pleasant, as well as instructive, to hear him talk about honey bees. His apiary, for quality at least, is probably the best in the United States. He keeps the Italian bees, which are considered something extra. He says he is about out of bees—having now only 116 hives! He sometimes keeps over 250."

☞ Mr. W. M. Hoge, who has lately arrived home from London, is now in the employ of Messrs. W. Harrison & Son, of London. England, having severed his connection with Messrs. Thurber & Co., of New York. Respecting the BEE JOURNAL Mr. Hoge in a letter says: "I certainly think you deserve the warmest commendation for bringing out the BEE JOURNAL as a Weekly, and I trust that the bee-keepers throughout the country will extend to it a hearty support."

☞ Please remember that if you forget our name and address, and it is not convenient to refer to a copy of the JOURNAL for it—it is no use to address "Tom Newman, Chicago." Two letters addressed like that have been sent to the Dead Letter Office in Washington and returned to the writers—and are now on our desk, after a month's delay. If you forget everything else and want a letter to reach us, and address it "BEE JOURNAL, Chicago"—that will find us, sure; for though there are many Newmans, there is but one BEE JOURNAL, and the postal clerks, are well acquainted with it.

OUR PORTRAIT.—The following letter is one of many similar ones:

"Holland, Mich., Dec. 15, 1880.
Mr. Thomas G. Newman: Dear Sir—Will you please give to your readers in the first Weekly BEE JOURNAL, an engraving of your likeness. Many of us, who have never seen you, would like to see it. MARTIN PELON."

We could not give it in the first number, as there was not time enough to get it engraved and ready, so we concluded to leave it for the first number in February, and to-day it may be found in the first page. Those who have seen it, say it is a good likeness.

Naughty Lizzie Cotton.

We are sorry to see that the *Farmers' Review* of this city is publishing the advestisement of that fraud—Lizzie Cotton. The *Kansas Farmer* has been solicited to do the same, but declines, and publishes the following:

LIZZIE E. COTTING!—Ah, Lizzie! you cruel siren, you wish to advertise your remarkable "New System" of bee-keeping in the *Farmer*. Well, Lizzie, you can't do it. The bee folks say you are a fraud. In fact, Lizzie, they go so far as to say you are a confidence *man*. We advise all young bee-keepers to stop their ears or tie themselves to the mast while passing the *hive* on which you sing, like the old mariners when passing the fatal island where the famous three of mythology sang.

She advertises a hive, that is a useless trap, when sent; but usually she returns nothing for the money sent. Her "book" exists only in advertisements or imagination. Mr. A. I. Root sent her a dollar for the same book years ago, and has her letter of acknowledgement, and later ones promising the book as soon as published, yet the book fails to appear.

Mrs. L. Harrison, in the *Prairie Farmer*, makes the following remarks concerning her [or him.]

"In Mrs. Cotton's circular, she says that by using her hive two hundred pounds of honey can be obtained, in localities where forty pounds by other methods, is considered a large yield. A wonderful hive surely; we always thought that bees gathered the honey, but it would appear from Mrs. Cotton's circular that the hive made it.

There is another wonderful apiary (on paper) located in Missouri which we would caution our readers against sending money to. This swindler is known by the name of N. C. Mitchell."

☞ Prof. A. S. Knapp, of the Iowa Agricultural College, makes the following mention of the BEE JOURNAL in the *Gate City*, Keokuk, Iowa: "The AMERICAN BEE JOURNAL is the oldest bee paper in America, established in 1861, in Chicago, by Thomas G. Newman, and has been conducted with marked ability and success. It is cosmopolitan; it covers the practical and scientific, the home and foreign. Whoever reads it will be well informed upon the history, progress and practice of bee-keeping."

☞ We were agreeably surprised with a New Year's call from Mr. F. F. Collins, Vice President of the North American Bee-Keepers' Society for Texas. Mr. Collins' headquarters are now at Houston. He reports the past season to have been very satisfactory to bee-keepers in his State, except in the vicinity of Dallas, where foul brood prevails to a considerable extent, he having lost all his again last season from that cause. Our bee-keeping friends visiting Texas will find Mr. Collins one of those large-hearted, whole-souled gentlemen whom it is a pleasure to meet.

☞ We desire to cut and paste the leaves of the BEE JOURNAL, and should have introduced this feature a month ago, but it requires costly machinery to do it. But few are in the city, and these are constantly employed. More are being introduced, and as soon as possible, we shall add that improvement to the JOURNAL.

☞ When changing a postoffice address, mention the *old* address as well as the new one.

Melilot Clover as a Honey Plant.

I find by the BEE JOURNAL that it is altogether in favor of melilot clover, as being the most profitable for bee pasturage. I desire to try it.

1. Where can I get the seed, and what will it cost?
2. How much is required to the acre, and when ought it to be sowed?
3. What kind of ground will be the best, and what amount is necessary for 50 colonies?
4. After once seeded, will it seed itself?
5. Does it have to be seeded every 2 years?

I have about 60 colonies, and am using "the winter hive."

REV. A. MCKNIGHT.
Bible Grove, Ills., Jan. 4, 1881.

ANSWERS.

1. We think you can obtain the seed from almost supply dealer; Mr. Alfred H. Newman, Chicago, keeps them in stock at 30c. per lb.

2. Five pounds per acre; during the first spring rain is as good a time as any. Scatter the seed thoroughly, then harrow it in lightly.

3. We have never seen any soil too good nor too poor for it; it will appreciate any waste spot donated to it. The amount required depends upon the want to be supplied. If there is plenty of white clover and basswood, then two or three acres of melilot will supply honey for them to subsist on and keep up breeding nicely till fall bloom sets in. If there is neither white clover nor basswood, then more melilot is required, say, one acre for every five colonies—we cannot answer precisely, as we have no positive data. At the BEE JOURNAL apiary last season we kept an average of about 100 colonies, which had nothing but the melilot that grows spontaneously along the streets and a few waste places in our neighborhood, from which to gather stores. White clover yielded no honey, nor did basswood. We run but four colonies for honey, and obtained perhaps a hundred pounds of extracted from each. We cannot determine what the others might have done, as we were continually dividing them, testing or nursing queens; they were often queenless, and experiments were the rule rather than the exception. From some, perhaps all, we extracted a little, sometimes close, and at other times but a trifle, as the nature of an experiment required. But we put away our bees with sufficient honey to live on under ordinary circumstances. This was from the spontaneous growth of sweet clover, certainly *not more* than enough to cover ten acres, perhaps not much over five. The little honey obtained from the willow, elm and maple shade trees was consumed as rapidly as gathered, in early spring, in brood-rearing.

4. Yes; we think it will. If, however, the same ground be planted in early spring and again in the fall, it would insure a profuse annual bloom, and as it replants itself biennially, all trouble of cultivation is at an end.

5. Answered above.

☞ It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

Flashy and Trashy Literature.

For the past two or three years there seems to have been a perfect *mania* for publishing books, circulars and magazines on bee-culture. Of course, those only that are valuable will survive, and the rest will soon be lost to memory. We were strikingly reminded of this upon reading the following "notice" given by the *Daily Telegraph* of a new pamphlet, published in London, England, The *Telegraph* says:

"British Bee-Farming; its Profits and Pleasures." By James J. Robinson, London: Chapman and Hall.—During the past three or four years various manuals of bee-keeping have appeared. The displays at the Crystal Palace and elsewhere of the operations of bee driving, &c., have called public attention to the pursuit, and those who wish to undertake bee-keeping scientifically have only to consult one of the various excellent manuals, or, better still, the very excellent monthly publication issued by the well-known bee-master, Mr. Abbott, of Hanwell. The subject there has been so thoroughly ventilated that we expected that some advance at least would mark any new work upon the subject. Such is not the case with the book before us; indeed, so completely behind the age is it that after reading for a while we looked backed at the title-page to see whether it was not a new edition of some work published half a century since. It is somewhat carelessly and hastily written. One passage contradicts another; one instruction nullified one that has gone before; while the sanguine calculations of profits are calculated to do infinite harm both to those who, on the strength of the profits held out, may embark upon the culture, and so by their failure and disappointment may hinder the spread of what is a really valuable addition to the laborer's cottage garden. We could multiply instances of the slovenly way in which the book is put together. An advanced apiarist will know what to think of it when he finds that in joining weak colonies no advice is given as to the previous capture of one of the queens, or the sprinkling both colonies with some slightly perfumed liquor, precautions taken by all who can pretend to be scientific bee-keepers nowadays. The deceptive nature of the statistics of the book may be judged by the fact that it is solemnly recorded that the annual product from each colony should be worth ten pounds—more in good seasons; but even in poor seasons it should clear six. It need not be said that any one who takes up bee-keeping with Mr. Robinson's book in hand, and with his head filled with Mr. Robinson's calculation as to the profits to be derived from each colony, is destined to a dismal and disastrous awakening to the facts of bee-keeping."

With "N. C. Mitchell," "Lizzie Cotton," and some others, who are publishing trashy and flashy literature with which to beguile the uninitiated, we can sympathize with our British brethren. Care should be taken to follow the teachings of those only who are known to be successful apiarists. The work of Messrs. Geo. Neighbour & Son being a standard book for England, as Cook's Manual, Quinby's New Bee-Keeping and Root's A B C are the standard books of the present day for America.

☞ Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

☞ Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Saturday of the week previous.

Pure Liquid Honey in Glass Jars.

By express I send, carriage paid, samples of absolutely pure honey prepared without addition or adulteration, so that *it will never candy*. I have prepared honey in this way for the past eighteen months, putting it to the severest test and have yet to learn of a single case where it *fermented* or *congealed*. I wish you would try to candy these samples if you can—expose them to the sun light, or put them in the coldest place you can find—only keep the bottles corked, except when you are testing its purity.

To practical bee-keepers engaged in marketing honey it is hardly necessary to say a word as to the importance of this discovery. The popular demand is for comb honey—and the only way for distributing comb honey sound and attractive, is to cut it up and pack it in glass jars. Heretofore a prejudice has existed against honey packed in this way, because so much glucose had to be used to keep it limpid, but now, that only pure honey will be used, these packages will fast become popular. I claim the following advantages:

1. Safe distribution of comb honey.

2. As large quantities of extracted honey will be required to pack the comb, in this way, an outlet will thus be made for the extracted as well as the comb.

3. Where combs are cut up, frames can be used instead of section boxes.

4. It will shut out glucose more effectual than legislation.

5. Cut comb honey in flint-glass jars is the most beautiful way of putting it up. It suits the dealer, it pleases the consumer, because it is handsome, because the package will not leak, because the honey will not congeal, and because it can be guaranteed to be pure.

I have avoided saying much about this while testing it, but now I consider it a success. W. M. Hoge.

New York, Jan. 17, 1881.

These samples came safely to hand, in a patent "pliable metal envelope," covered with paper outside—a really nice thing.

The samples of honey appear very nice and clear, but we have had no time to get them analyzed, to test their purity. They show no signs of granulation, however.

One of the most reliable tests for pure honey is its granulation—and consumers are being educated to suspect all that is not candied in the fall and winter months.

The popular prejudice is rightfully directed against comb honey in glass jars—knowing that nearly all of such is surrounded with a vile compound of which glucose is the chief ingredient—this Mr. Hoge will have to overcome if he ever makes his plan successful, but we fear it will be a long and tedious undertaking.

Three years ago, we took some of our honey from melilot clover to a chemist and had it clarified. This we took to several Conventions in this country, and also to England, Scotland, Wales, France, Switzerland, Italy, Austria, Germany and Belgium, and exhibited it to the most noted apiarists in the World. It is now on our desk, and is as yet *not candied*. We expect Mr. H's plan is similar—and if so, of course the honey is *pure*. Ours was only subjected to the "water bath," and "percolated." We had intended to experiment further with this method, but a multitude of cares and duties, public and private, have prevented us from doing so. We are glad that Mr. Hoge has now taken the matter up, and he is deserving the thanks of honey-producers, for any efforts tending to putting a stop to the adulterations, now so much practiced.

AMONG OUR EXCHANGES

LONDON JOURNAL OF HORT.

Feeding Bees with Whisky.—Mr. Frank Cheshire is one of England's most scientific and practical apiarists, whom we had the pleasure of becoming acquainted with while in England in 1879. He makes the following comments upon an item which was given on page 13 of the Bee Journal:

"Different kinds of sugar, such as sucrose, glucose, and lactose, agree in containing carbon, hydrogen, and oxygen, the latter two in the proportions in which they form water. This sugar becomes the heat-giver to the bee in the following manner:—Air containing oxygen is taken in by the bees through spiracles (the breaking openings) in the sides of which are fourteen in number, and this oxygen is by degrees united with the carbon of the sugar, which is being carried about in solution in the fluids of the insect. The carbon thus becomes a part of a gaseous product—carbon dioxide, which is thrown out from the breathing tubes (tracheæ) at every contraction of the abdomen. The union of oxygen and carbon is always attended with a great evolution of heat, and is, indeed, the sole cause of the fervor of a charcoal fire, and mainly gives intensity to one of coal. Heat, then, is developed within the bee's body as this chemical union progresses, and during the winter each insect plays its part in keeping up the temperature of the cluster. It must be added to save misconception, that in certain circumstances the organized tissue of the insect may itself unite with oxygen and contribute the heat formation, but our argument will be made the clearer if this point be left out of view.

"We have now to consider the physiological effects of alcohol to ascertain whether the bee would be likely to be assisted by it in keeping out the cold, and here we must argue from its well-ascertained action upon men and some of the higher animals; but in this we shall be justified, since morphia, strychnia, aconite, and some other drugs are well known to microscopists to influence creatures even so low in the scale as infusoria and rotifera after the same manner as they effect those with the most complex organization. Numberless experiments upon men, dogs, and pigeons have clearly shown that alchol *hinders* the union of oxygen with carbon in the vital fluids, and in consequence a smaller amount of heat is produced during its presence in the blood, while it follows that less carbon dioxide is thrown out. Applying this to the bee, it would follow as a matter of course that it would be far less able to withstand the rigors of winter with it than without it. Those who know anything of the history of our arctic expeditions will recognize the complete corroboration which these give of the truth of this position. That alcohol produces a feeling of flush is well known, but the cause is the partial paralysis of the pneumo-gastric nerve, the duty of which is to hold in check the minute blood vessels. The check removed, the blood vessels stretch out under the pressure of the contained blood; and a general surface blush is the result; but this no more produces warmth than would turning the hot inside of a manure heap to the surface warm it. Indeed it is an act of cooling, in which heat that before was deeply seated is made to display itself, but is at the same time lost by dissipation in the surrounding air. Those who care to look to the *Lancet* for August 25th, 1866, will find details of some remarkable experiments tried in University College Hospital, putting this matter in the clearest light, and showing that alcohol immediately after the first flush is a most persistent and powerful depresser of temperature. But since the structure of the circulation of insects is very unlike our own, it is chiefly important for us here to note that its action is due to its lowering of nerve energy, than which nothing would be more likely to unfit bees for battling with the adverse conditions of a protracted winter. That alcohol may give a flash as it were none will deny; but even this it does not do because it gives strength, but because it renders a further paying-out of our resources possible; but as they are paid out we are left poorer, weaker, than before, hence the excitement brings exhaustion, and the higher the one the deeper the other. Alcohol is an irritant, and therefore a waster of vital energy, and so the very reverse of that needed by wintering bees, every power of which should by all means be husbanded in order that returning spring may find them with a large balance of energy still standing to their account.

"Three powerful reasons, amongst several others unmentioned, are now before us, each one by itself sufficient to condemn alcohol as a part of bee food. We find it hinders oxidation and prevents heat being developed. It lowers nerve tone, and so in the end weakens. It irritates and therefore exhausts, while, so far as I have been able to discover, it does not bring us for these evils one countervailing advantage.

"Good indeed would it be for many if the old unscientific delusion that alcohol keeps out the cold were altogether dispelled; but I write because I am deeply convinced that it will be good for our bees when every bee-keeper knows that protection keeps in the heat and that good honest sugar is the right thing to produce it."

GLEANINGS.

Lime for Wintering.—Mr. C. Lover, Reistertown, Md., remarks as follows:

"This will be a hard winter on bees in most parts of the country, on account of lack of good stores, and mostly old bees—a poor prospect certainly. We must help the little fellows, or make up our minds to lose them. Last winter I kept 10 colonies warm, dry, and in good health, by chemical means; *i.e.*, by a generous use of quicklime. My other colonies had the dysentery, and every one of the chaff hives were mildewed and wet, in spite of three dryings during the winter; while the 10 cushions used on the hives with lime, were as dry and clean as when first made. No one will believe the amount of water quicklime takes up by chemical affinity, unless they try the experiment for themselves; therefore, take about 1 quart of it in a basin, and ½ pint of water, which pour slowly on the lime, stiring well all the time during the slaking, and if the lime was properly made you will have a perfectly dry powder, still capable of absorbing more water before becoming damp. The action of the lime is threefold:

1. It absorbs moisture.
2. It absorbs carbon dioxide (carbonic acid).
3. It gives out a large amount of heat.

This it does slowly, and in exact proportion as it absorbs the breath of the bees; *i.e.*, much moisture, rapid chemical action, much heat. What is still more strange, this is dry heat, not moist. This absorbing action is so slow, and the amount of heat so small, that nothing but scientific instruments, hygrometer and thermometer, and the bees can appreciate the meaning of a constant, mild, dry, pure atmosphere. What is the use in making the bees use up their honey, worth 15c. per lb., to develop the requiste heat to keep them alive, when it can be done with lime, worth less than one cent per lb., and which is almost as valuable after this slaking as before? Do not believe me when I say, not one of the 10 colonies above mentioned used over 15 lbs. of honey (all they had) in wintering out of doors, even if it was a mild winter, for I can hardly realize it myself, even when I see the figures in my yard-book now before me.

When you try the experiment of slaking the lime, notice the heat developed, but not with you finger (unless for a cartoon). I used the lime in a feeder *a la* Van Deusen, made flat and laid broadside next the bees under cushion; this was troublesome, requiring frequent refilling. I will use, this winter, on my weak colonies, a box made like your chaff-cushion division-board, and to hold about half a peck of lime.

Chloride of calcium (calcined) will absorb much more water than lime, and I expect much from it for these same purposes; but it will have to be contained in a water-proof vessel as it is one of the most delinquent substances I know of. Abscence of actual expriment is the only reason that prevents me from recommending this substance to the careful bee-keeper, although I am certain it would be a success.

MISCELLANEOUS.

☞ One of the most exquisite and ancient beverages of Poland, had been elevated even to a drink of the gods in times before Christ. More accurate statements in regard to the manufacture of this drink, date already from the year 1067; at that period it was known under the name of "Sycera," and was considered, according to popular tradition, as a remedy possessing a miraculous power. The preparation is very simple; pure honey is used with a certain quantity of water, which is boiled and after that left to ferment. The older mead becomes, the better it is, and has a taste similar to Malaga or Marsala wine; in using it for abdominal disorders it has a very soothing effect, but when taken in larger quantities it will produce heat and stupefaction.—*German Paper.*

The American Bee Journal is the leading apicultural journal in the Union; was heretofore published as a monthly octavo, but now it is changed into a four-column weekly quarto, and from this time forward will be published in that form. The Bee Journal enjoys the enviable reputation of having been the first periodical exclusively devoted to apiculture in America, and it is at this time the only weekly paper devoted to that specialty in the world! It is a remarkably clean and clear print, on fine calendered white paper, and we commend it to our patrons and the public. Each number will contain eight pages (32 per month) at least an inch longer and wider than the *Farmer*, and well filled with the most ably conducted bee literature in this or any other country; and at the end of the year its patrons will possess 416 pages of the choicest and most reliable bee literature extant. We know from many considerations that this "departure" will be acceptable to the old patrons of the Bee Journal (and their names ought to be "legion") not only in America, but wherever the English language can be read, or bee culture pursued. It affords us unalloyed pleasure to notice these indications of progress on the part of our contemporaries, and especially those engaged in illuminating the realm of "beedom."—*Farmer*, Lancaster, Pa.

☞ Is there any joy greater than that which is experienced by one person when he helps another? There are some men so low down that it is said they can not bear to have the smell of their clover go into the highway for fear that others will get something that belongs to them without paying for it; others are said to begrudge bees the honey which they take from their flowers without leaving anything behind; but that is, doubtless, imaginary. A man whose heart does not respond to an act of doing good or giving happiness is no longer a man. He has passed the line of manhood, and should be ranked among beasts.—*Patron's Guide.*

☞ At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

CONVENTION NOTES

Indiana State Convention.

The Indiana State Bee-Keepers' Association met at Indianapolis on Jan. 13, 1881, at 10 a. m.

President Belman in the chair. Many members being absent, the regular order of business was postponed until the afternoon, and after friendly greetings, adjourned till 2 o'clock p. m.

On reassembling, the regular order of business was proceeded with. The secretary's report being the first thing in order, was read and approved. The treasurer's report showed the total amount of receipts to be $27.50; expenditures for advertising, postage, etc., $12.18; leaving a balance in the treasury of $15.32.

PRESIDENT'S ADDRESS.

Since our last meeting but little has transpired among apiarists throughout the State, except what is patent to all—a general regret that the honey harvest has been, in commercial parlance, "short." Everyone present is fully advised as to the causes which produced this failure, and that against such a result there was no possible remedy. Very many colonies failed to secure a sufficient quantum for their winter stores, and feeding became necessary. The product for the market was exceedingly limited, and instead of the choice white clover or apple blossom honey, there was sold the fall flower or wild exotic honey, not as palatable nor as marketable as the former. Close up to the last working days of the industrious bee, came a cold wave in October from the polar regions, which found very many of our bee-keepers asleep, and the sequel was, the weakening and loss of scores of colonies. In view of this unusual state of apicultural affairs, there cannot be expected at this session any encouraging reports as to the financial results of the year 1880. Such a condition of discouraging surroundings in apiarianism may not occur again in a lifetime, while the probabilities are that the approaching season will be grandly successful and productive. Therefore, I give you good cheer and urge you to delve down deep into the fields of apiculture, and, as you develop the mysterious instinct of the bee and its many but certain workings, let it be your highest pleasure to impart all information you may possess to your fellows, until the bee-keepers of Indiana shall receive the plaudits of sister states—"Well done, good and faithful servants." This may be our triumph, provided we invoke the ordering and guidance of an all-wise Providence.

While there is a possibility of too much care in the housing and wintering of the bee from what it would receive in the trunk of a tree or a hole in the ground, there is undoubtedly much to be apprehended in the carelessness and indifference and incompetency, on account of which many colonies are lost, and the amateur, and, indeed, the more experienced, attribute the fault of their mishap and failure to the bees, to the hive, and even the ways of Divine Providence, when to themselves and none other they should charge the mismanagement and unwise, indolent and injudicious handling....

As to the character and comeliness of your packages, permit me to urge your closest attention, that they may be neatly and carefully prepared, and so presentable for the customer as to command the highest commendation and the best market price. Various methods have been given in the bee journals and yet much depends upon the apiarist as to how far these may be a success. To my thought there is no table condiment so delightful to the eye and palatable to the teste, as honey in uniform and roundly-formed capped packages. I would recommend that your secretary be empowered to obtain the names and postoffice address of every bee-keeper in the State of Indiana, requesting from them the number of their colonies, amount of honey produced, kind of hive used and such other information as would be useful to the State Association; and to this end that the secretary draw his warrant on the treasurer, countersigned by the president, for such sums as will procure printed circulars, postage, papers, etc., necessary to carry out this purpose....

As to the present status of the Association financially, I refer you to the annual report of Hon. Isaac N. Cotton, treasurer, and also the report of your distinguished secretary, Mr. Frank Dougherty. The society is not in debt, and has a small balance to their credit in the treasury. There is, in the opinion of some of the members, a necessity for a change in the price of initiation, or rather an increase from 50 cents to $1 per annum. It is urged that a need will arise for additional funds to pay expenses of new projects that may be ordered by you, and which are deemed necessary for the augmentation and furtherance of the interests of the society. I trust such action will be taken in this regard as will facilitate this end.

I am also impressed that profitable advantages would be obtained by the organization of county societies in every part of the State, from which auxiliaries the State organization would receive valuable statistics and other matter beneficial to the apicultural interests of Indiana. May I be permitted to urge upon you the propriety of taking such steps as will bring about these results?

In closing this hastily prepared address, I must refer with pleasure to the very valuable services rendered the apiary interests by your secretary, Mr. Frank Dougherty. His time has been largely contributed to the advancement and development of the busy bee in Indiana, and I cordially recommend his re-election to the trust he has so commendably and ably filled during the past year.

With many thanks for the honor I have enjoyed at your hands, I earnestly invoke your continuity and faithfulness in a profession which should be, as I believe it is, the pride of our lives.

After the reading of the address, the convention proceeded to the election of officers for the ensuing year, resulting as follows: President, J. H. Orear, Lizton; Secretary, Frank L. Dougherty, Indianapolis; Treasurer, I. N. Cotton, Trader's Point.

An essay on "Moving Bees by Railroad," prepared by Rev. M. Mahan, Huntington, Indiana, was read by the secretary. It contained some valuable suggestions in regard to preparing bees for safe shipment. The paper was discussed by several members.

"Wintering Bees," the next question, was then taken up.

Mr. Belman packed in straw; did not think they could be too well protected.

Mr. Fells used large boxes around the hives, well filled with dry leaves, and had succeeded beyond his expectations.

The secretary, in wintering, removed all combs that the bees did not cover; thought five or six combs a plenty where care was taken to give those containing sufficient stores. Placed sticks across the top of the frames to keep the cloth from settling down, to allow the bees to cross from one frame to another. Used chaff division boards on the sides, with pieces of carpet, blankets or quilts, and chaff cushions on top. Thought almost as much depended on the fall management of bees for safe wintering, as packing. Was satisfied that young bees were almost a necessity; they were better able to withstand the cold and confinement than old, half worn-out bees.

Mr. Davis said his bees had been flying out, leaving the hives a few at a time, all winter, until some of the hives had become entirely depopulated, with very few dead bees around the entrance. Mr. Fells thought old bees the cause, with which the president and Mr. Brown agreed. The secretary did not think that this trouble could be entirely attributed to old bees; he believed that there was disease, something which we were not yet able to discuss. Mr. Raab thought old bees the principal cause, but believed, with the secretary, that there was still a disease at work also.

The discussion was further indulged in until quite late, when, on motion of Mr. Belman, the meeting adjourned till 9 o'clock the next day.

The meeting of the second day was called to order at 9 o'clock, with President Orear in the chair. After the usual preliminaries, allowing of bills, etc., the convention proceeded to the discussion of various subjects, Albino bees being the first, Mr. Brown believed them to be a distinct race, while the voice of the convention decided them to be a cross from the Italians.

Introducing virgin queens, came next. A majority of the members seemed to think the best plan was to let them run in at the entrance, taking their chances, believing the loss would be no greater than in introducing queen cells.

Hiving swarms was discussed at some length.

The secretary was then called on to describe his mode of making candy for bees, some samples of which seemed to please the bee-men as well as bees, from the manner in which it disappeared.

Various other interesting subjects were then discussed at some length, when the question of vice-president was called up. After some discussion it was decided to nominate a vice-president for each county, instead of each Congressional district, as heretofore. The list not being completed, the executive committee was instructed to fill vacancies and notify the appointees.

G. J. Brown, Anderson, Ind., read an essay on "Bees and Bee-keeping."

The secretary was instructed to have constitution and by-laws printed, sending one copy to each member of the society.

The Association, by resolution, returned a vote of thanks to Secretary Heron, of the State Board, the Board of Agriculture, and the daily papers, for favors received.

There were on exhibition many samples of implements used in modern bee-culture, among which were two extractors and knives from C. F. Muth, Cincinnati, Ohio, and G. P. McDougall, Indianapolis; honey-knife and smokers, from Bingham & Betherington, Otsego, Mich.; Quinby's New Smoker and book, from L. C. Root & Bro., Mohawk, N. Y.; A B C of Bee-culture, and Cook's Manual of the Apiary, from the Indiana *Farmer* office.

The secretary also had two hives, showing the different styles of sections, queen cages, candy, etc., all of which were much admired by the members.

The convention adjourned to meet at the call of the executive committee.

FRANK L. DOUGHERTY, Sec'y.

Texas Convention.

The Texas Bee-Keepers' Association convened at Greenville, Hunt county, Jan, 11, 1881, at 1 p. m.

Judge W. H. Andrews, president, delivered a brief address. He was well pleased with the interest taken in bee-culture by the few who were engaged in the pursuit. He said that to be successful in bee-culture one must take an interest in the study of the habits and natural history of the honey bee; that bee-keeping was a progressive science, that there was much to be learned; and that by an interchange of ideas, such as was to be had in our conventions, was both useful and instructive as well as pleasant and interesting. He had harvested an unusual crop of honey during the past season. He commenced the season with 125 colonies and increased to 200, which went into winter quarters in good condition; after having produced between 7,000 and 8,000 lbs. of honey, mostly in the comb. He had hitherto believed the blacks to be the easiest to induce to work in boxes, but the past season demonstrated that his best Italians were equal, if not superior to any; he assigned as a cause, in the past, of failure to induce his Italians to commence in boxes,—disturbances accasioned by queen rearing.

Mr. John Mason, on a recent visit to Arkansas, had discovered that "black gum" yielded an abundance of honey, of excellent quality. He commenced the season with 53 colonies, and had increased to 80; all of which were in good condition, some of them having over 75 lbs. of honey in the upper story, above the brood chamber. One that he weighed, showed 83 lbs. The honey left over was pungent and not fit for the market, or any other purpose, unless it was for some medical virtue it might possess. He had extracted a few pounds of it, found that it granulated readily, but did not lose its pungency. He had obtained 1506 lbs. of extracted and 600 lbs. of comb honey. He sold the extracted at 16½ cents per pound and the comb honey at 20 cents. The comb honey was all in boxes, which were emptied and returned. He sold his honey at home. His honey was the best he had ever obtained, and the harvest had been all that could be wished.

Mr. Wm. R. Graham was well pleased with what his bees had done during the past season; he thought it had been the best, in this locality, for years: he had 40 colonies in the spring, and increased to 100. He noticed that, late in the fall, some of his bees had no brood, but had plenty of honey. He obtained 2,000 lbs. of extracted honey, which he sold at 15 cents per lb., at home.

D. W. Yeager, commenced the season with 8 colonies and had an increase of 14, making in all 22. He had 360 lbs. of extracted honey. The nicest he had ever seen. His increase was by artificial swarming entirely. His bees were shaded by his vineyard.

Dr. Wm. R. Howard commenced the season with 20 colonies, after having lost 2 from dysentery, early in the spring; had increased by natural swarming to 43, which were all alive the last warm day, when they had a fly. He had taken 750 lbs. of extracted honey, of fine quality, which he sold at 15 cents per pound, mostly at home. What was put on the market, was put up in ½ gal. glass fruit jars. He had spent a good deal of time in Italianizing his apiary, and breeding a good strain of bees. The year 1878, he thought, was as good a honey season as 1880, and that the reason that such enormous yields had been harvested, the past season, was that all hands had plenty of comb to give to swarms, comb left over from the serious losses in 1879. That neither Mr. Graham, Mr. Mason or Judge Andrews had made up in numbers, the colonies for 1879.

All agreed that that was a great help, but thought that last year was the best for several past.

Dr. Duff said that he commenced the season with 1 colony, and had increased to 5; he received about 30 lbs. extracted honey, and was well satisfied with his success, considering the capital invested.

Dr. D. J. Jernigan wanted to know if any one had tried the Spider plant and Simpson's honey-plant; he had raised a few plants and had seed of the spider plant to give to any one who wished to try it.

No one had any experience with either of the plants, but from what some had seen of their honey-producing qualities, were satisfied that they were valuable and would be made useful, if it were not for the difficulty in starting the plants.

Dr. Howard had planted an acre in buckwheat in 1880, and, though the bees visited it every morning, he received no honey from that source. He had tried buckwheat in 1879 and 1880, and had succeeded in getting a good crop of seed and straw, growing as high as 6 ft., both years, and a considerable amount of honey from it in 1878, considering the number of bees he had to gather it. He had plants enough to set an acre of sweet clover or melilot, which he would try the coming season; some of it blossomed the first year from the seed. He thought the acreage of horse-mint was steadily increasing; as the grass was being eaten out on the prairies and rapidly giving away, horse-mint was taking its place. All agreed that horse-mint was the plant of all plants for honey.

On motion, a vote of thanks was tendered to Messrs. Matthews and Marshall for the use of their spacious and comfortable room in which to hold our convention; after which the meeting adjourned, to hold its 3d annual convention at the apiary of Judge W. H. Andrews, at McKinney, Collins county, on the 12th and 13th of May, 1881.

W. H. ANDREWS, *Pres.*
WM. R. HOWARD, *Sec'y.*

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both :

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A. I. Root)	3 00..	2 75
Bee-Keepers' Magazine (A. J. King)..	3 00	2 60
Bee-Keepers' Exchange (J. H. Nellis).	2 75..	2 50
The 4 above-named papers.........	4 75..	3 75
Bee-Keepers' Instructor (W. Thomas)	2 50..	2 35
Bee-Keepers' Guide (A. G. Hill).......	2 50..	2 35
The 6 above-named papers.........	5 75..	5 00
Prof. Cook's Manual (bound in cloth)	3 25..	3 00
Bee-Colture (T. G. Newman)............	2 40..	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 18@20c. for strictly choice white comb in 1 and 2 lb. boxes ; at 14@16c. for fair to good in large packages, and at 10@12c. for common dark-colored and broken lots.—*Chicago Times.*

BEESWAX.—Choice yellow, 20@24c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 18@20c.; fair do., 15@16c.; dark do., 11@13 ; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 80@85c.

BEESWAX.—Prime quality, 20@24c.

H. K. & F. B. THURBER & Co.

CINCINNATI.

HONEY.—The market for extracted clover honey is very good, and in demand at 10c. for the best, and 7@8c. for basswood and dark honey. The supply of comb honey is good, with a fair demand. We pay 16c. for the best.

BEESWAX—18@24c. C. F. MUTH.

SAN FRANCISCO.

HONEY—Our market is inactive for honey—no demand only for local trade. We quote comb 12@14c. Extracted, choice white, 7@7½c.; off-colors and candied, 5@6½c.

BEESWAX—22@24c., as to color.

STEARNS & SMITH, 423 Front Street.
January 22, 1881.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Feb. 8, 9—Ashtabula Co., O., at Andover O.
W. D. Howells, Sec., Jefferson, O.
April 5—Central Kentucky, at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 18—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

LADIES WHO APPRECIATE ELEGANCE and purity are using Parker's Hair Balsam. It is the best article sold for restoring gray hair to its original color and beauty.

☞ Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

☞ Any one desiring to get a copy of the Constitution and By-Laws of the National Society, can do so by sending a stamp to this office to pay postage. If they desire to become members, a fee of $1.00 should accompany it, and the name will be duly recorded.' This notice is given at the request of the Executive Committee.

A Great Paper.—We desire to call the attention of our readers to one of the greatest newspapers of the age—one that secures the best writers in this country and Europe, regardless of expense ; has the best and fullest book reviews of any paper in the country ; has able articles upon financial subjects ; has departments devoted to Fine Arts, Biblical Research (something that cannot be found in any other newspaper in the United States), Farm and Garden, Insurance, Weekly Market Reports, Cattle Market, Prices Current, Dry Goods Quotations, etc.—in fact, a newspaper fully suited to the requirements of every family, containing a fund of information which cannot be had in any other shape, and having a wide circulation all over the country and in Europe. We refer to THE INDEPENDENT, of New York. "The largest, the ablest, the best." See advertisement, in another column, and send for specimen copy.

HEDDON'S CIRCULAR,
Giving prices and descriptions, with cuts, of his
IMPROVED LANGSTROTH HIVE,
White Spruce Sections and Boxes,
Latest Improved Honey Scales,
Queens and Full Colonies,
UNEXCELLED BEE FEEDER,
The Three Popular and
Best Styles of Comb Foundation,
Wired or not, in Langstroth frames or out.
Protectors, Honey Knives, Smokers, Glass, Honey and Wax Extractors, etc., together with the Best Honey-Yielding and Market Garden
SMALL FRUIT PLANTS,
is now ready to mail. Please send at once your full address, Post Office, County and State, to
JAMES HEDDON,
Dowagiac, Cass County, Mich.
☞ No Circulars sent unless solicited. 1t7

BE SURE
To send a postal card for our Illustrated Catalogue of Apiarian Supplies before purchasing elsewhere. It contains illustrations and descriptions of everything new and valuable needed in an apiary, at the lowest prices. Italian, Cyprian and Holy Land Queens and Bees.
J. C. & H. P. SAYLES,
2eow15t Hartford, Wis.

Friends, if you are in any way interested in
BEES OR HONEY
We will with pleasure send you a sample copy of our
Monthly Gleanings in Bee-Culture,
with a descriptive price-list of the latest improvements in **Hives, Honey Extractors, Artificial Comb, Section Honey Boxes,** all books and journals, and everything pertaining to Bee Culture. *Nothing Patented.* Simply send your address on a postal card, *written plainly*, to A. I. ROOT, Medina, O.

HEADQUARTERS FOR
PURE ALBINO AND ITALIAN
QUEENS AND COLONIES FOR 1881.
As I make queen-rearing a specialty, I guarantee to those ordering from me just what they bargain for. Circulars free. Address, D. A. PIKE,
1m6t Box 19, Smithsburg, Washington Co., Md.

WANTED—A man who thoroughly understands the business, to take charge of my apiary for the coming season. Address, stating qualifications and terms, and giving references, F. H. HUNT, Center Point, Linn Co., Iowa. 5w1t

FOUNDATION MACHINES—From $1.00 to $5.00 ; foundation, less than 5 lbs., 40c.; over 5 lbs., 35c.; over 50 lbs., 34c.; over 100 lbs., 33½c. My foundation positively will not sag. Italian Queens, from Imported Mothers, $1.00, ready in April. Price List free. JOHN FARIS, Chilhowie, Smyth Co., Va.

CHEAP HIVES.
The best movable-frame Hives ; the best Honey Boxes ; Lewis' One-Piece Sections, Dovetailed and Nailed Sections, etc., for the least money. Manufacturing experience of 20 years. Send for Price List, G. B. LEWIS,
Successor to Lewis & Parks, Watertown, Wis.
N. B.—There is no patent on the Lewis One-Piece Section. 12mtf

PARKER'S GINGER TONIC
Ginger, Buchu, Mandrake, Stillingia and many other of the best medicines known are combined so skillfully in PARKER'S GINGER TONIC as to make it the greatest Blood Purifier and the Best Health and Strength Restorer ever used.
It cures Dyspepsia, Rheumatism, Neuralgia, Sleeplessness, and all diseases of the Stomach, Bowels, Lungs, Liver, Kidneys, Urinary Organs and all Female Complaints.
If you are wasting away with Consumption or any disease, use the TONIC to-day. No matter what your symptoms may be, it will surely help you.
Remember! This TONIC cures drunkenness, is the Best Family Medicine ever made, entirely different from Bitters, Ginger Preparations and other Tonics, and combines the best curative properties of all. Buy a 50c. bottle of your druggist. None genuine without our signature on outside wrapper. HISCOX & Co., Chemists, New York.
PARKER'S HAIR BALSAM The best and most economical Hair Dressing

BARNES' PATENT
Foot-Power Machinery

CIRCULAR and
SCROLL SAWS
Hand, Circular Rip Saws for general heavy and light ripping. Lathes, &c. These machines are especially adapted to **Hive Making.** It will pay every bee-keeper to send for our 48 page Illustrated Catalogue.
W. F. & JOHN BARNES
Rookford, Winnebago Co., Ill.

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Inventor and Sole Manufacturer of the
DUNHAM
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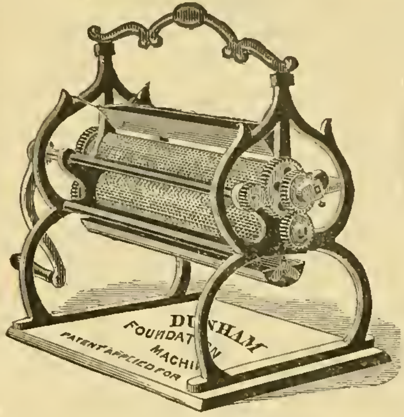

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☞ New Circular and Samples free.
FRANCES DUNHAM,
1sm6m DEPERE, BROWN CO., WIS.

Italian, Cyprian & Holy Land Queens.
Single Queen, Tested $2 00
" Untested, laying.. 1 00
By mail, safe arrival guaranteed.
8-frame colony........................ $6 00
3-frame nucleus.................. 3 00
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By express, safe arrival guaranteed.
W. P. HENDERSON, Murfreesboro, Tenn.
1m6t

FOUNDATION MACHINES
ALWAYS MANUFACTURED BY
JOHN BOURGMEYER, Fond du Lac, Wis.
☞ Brass Rollers for a perpetual machine made to order. Send for circular and samples.
5w1t JOHN BOURGMEYER.

SECTIONS AND HIVES.

We have concluded to extend the time another month. We will make the "Boss" Sections, during the month of February, any size desired up to 5x6 for $5.00. Material for Langstroth hive, 50c.
JAMES FORNCROOK & CO.
Watertown, Jeff. Co., Wis., Feb. 1, 1880.
Take Notice.—There is a patent pending on the "Boss" Section. 5wtf

CYPRIAN QUEENS for 1881.
We are now registering orders for these bees for 1881. Send for our Cyprian Queen Bee Circular.
1mtf H. ALLEY, Wenham, Mass.

EVERETT'S Honey Extractors and Everett Langstroth Hives a specialty. We challenge competion in price and quality. Our circular and price list of apiarian supplies, Italian Bees and high-class poultry sent free. EVERETT BROS., Toledo, O.

A NEW PLAN.—For one dollar we will send full printed directions how to prevent the end of the sheet of wax from adhering to the rolls in making comb foundation. Address,
1m6t SMITH & SMITH, Kenton, Ohio.

HEADQUARTERS IN THE SOUTH,
for the Manufacture and Sale of
BEE-KEEPES' SUPPLIES,
Simplicicity and Langstroth Hives and Frames,
THE NEW ALL-IN-ONE-PIECE SECTIONS.
Having purchased, from A. I. Root, a machine for making these sections, I am ready to supply them in any quantity. Comb Foundation, made of pure yellow wax, and worked on shares ; Honey and Wax Extractors, Knives, Bee Smokers, etc.
ITALIAN QUEENS AND BEES,
all bred from imported mothers of my own importation. Dollar Queens, ready April 1st, $1.10, until June 1st ; after, $1.
Tested Queens from 1st March to 1st November Safe arrival guaranteed and all queens sent by mail, I send no queens that I would not have for myself. Full colonies of Italian Bees from $5 to $8.50, according to quantity, etc. Early 4-frame nucleus, with Tested Queen, $5. No black bees in the neighborhood. Send for my Illustrated Catalogue of prices, etc. Address,
PAUL L. VIALLON,
5mtf Bayou Goula, La.

ITALIAN QUEENS.
Tested Queens........................ $1 50
Warranted Queens.................. 1 00
Cyprian Queens, untested........ 1 00
As most all the Dollar Queens I sold last year were pure, I will warrant them this year. J. T. WILSON,
Mortonsville, Woodford Co., Ky.
1m6t

Books for Bee-Keepers.

Cook's Manual of the Apiary.—Entirely re-written, greatly enlarged and elegantly illustrated, and is fully up with the times on every conceivable subject that interests the apiarist. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, **$1.25** ; paper covers, **$1.00**, postpaid. Per dozen, by express, cloth, $12.; paper, $9.50.

Quinby's New Bee-Keeping, by L. C. Root.—The author has treated the subject of bee-keeping in a manner that cannot fail to interest all. Its style is plain and forcible, making all its readers sensible of the fact that the author is really the master of the subject. Price, **$1.50.**

Novice's A B C of Bee-Culture, by A. I. Root. This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, **$1.25**; paper, **$1.00.**

King's Bee-Keepers' Text-Book, by A. J. King.—This edition is revised and brought down to the present time. Cloth, **$1.00**; paper, **75c.**

Langstroth on the Hive and Honey Bee. This is a standard scientific work. Price, **$2.00.**

Blessed Bees, by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, **$1.00.**

Bee-Culture ; or Successful Management of the Apiary, by Thomas G. Newman.—This pamphlet embraces the following subjects : The Location of the Apiary—Honey Plants—Queen Rearing—Feeding—Swarming—Dividing—Transferring—Italianizing—Introducing Queens—Extracting—Quieting and Handling Bees—The Newest Method of Preparing Honey for Market, etc. It is published in **English** and **German.** Price for either edition, **40 cents**, postpaid, or $3.00 per dozen.

Food Adulteration ; What we eat and should not eat. This book should be in every family, where it ought to create a sentiment against the adulteration of food products, and demand a law to protect consumers against the many health-destroying adulterations offered as food. 200 pages. Paper, **50c.**

The Dzierzon Theory ;—presents the fundamental principles of bee-culture, and furnishes a condensed statement of the facts and arguments by which they are demonstrated. Price, **15 cents.**

Honey, as Food and Medicine, by Thomas G. Newman.—This is a pamphlet of 24 pages, discoursing upon the Ancient History of Bees and Honey ; the nature, quality, sources, and preparation of Honey for the Market ; Honey as an article of food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, &c.; and Honey as Medicine, followed by many useful Recipes. It is intended for consumers, and should be scattered by thousands all over the country, and thus assist in creating a demand for honey. Published in **English** and **German.** Price for either edition, **6c.**; per dozen, **50c.**

Wintering Bees.—This pamphlet contains all the Prize Essays on this important subject, that were read before the Centennial Bee-Keepers' Association. The Prize—$25 in gold—was awarded to Prof. Cook's Essay, which is given in full. Price, **10c.**

Bees and their Management. This pamphlet was issued by the Italian Bee Company, and has had a large circulation. The price has been reduced from 20 cents to **10 cents.**

The Hive I Use—Being a description of the hive used by G. M. Doolittle. Price, **5c.**

Kendall's Horse Book—No book can be more useful to horse owners. It has 35 engravings, illustrating positions of sick horses, and treats all diseases in a plain and comprehensive manner. It has a large number of good recipes, a table of doses, and much other valuable horse information. Paper, **25c.**

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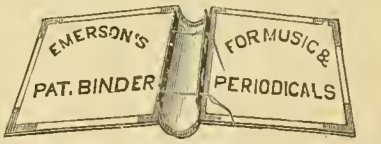

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PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

☞ "What is the meaning of 'Dec. 81' after my name on the direction-label of my paper?" This question has been asked by several, and to save answering each one, let us here say: It means that you have paid for the full year, or until "Dec. 31, 1881." "June 81" means that the first half of the year is paid for, up to "July 1st." Any other month, the same.

☞ Owing to my increased business I shall not be able to attend to the bee supply business this year, and while thanking all my old customers for past favors, I would recommend them to buy their bee-keepers' supplies from Mr. A. H. Newman, of Chicago, as I know the orders will be despatched on the shortest notice. W. G. WALTON.
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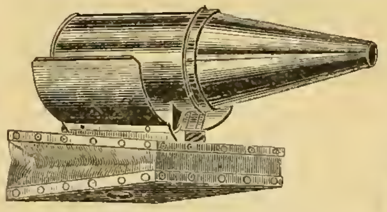

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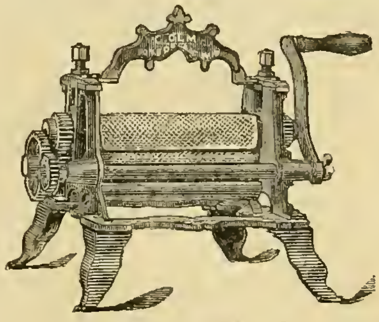

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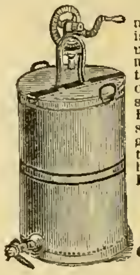

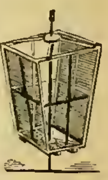

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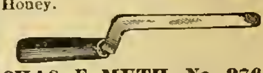

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THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., FEBRUARY 9, 1881. No. 6.

THE AMERICAN BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,

EDITOR AND PROPRIETOR,

974 WEST MADISON ST., CHICAGO, ILL.

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CORRESPONDENCE.

For the American Bee Journal.

The Weekly, Introducing Queens, Etc.

G. H. ADAMS.

As I have been a reader of the AMERICAN BEE JOURNAL and a keeper of bees for over 3 years, I thought I would express myself in regard to the JOURNAL. I like it very much and cannot do without it. Friend Newman, you may put me down as a life subscriber of the AMERICAN BEE JOURNAL. I am glad it is to be a Weekly. I think $2 a year very low for a weekly bee paper. I will say I think there is just one article in the December number, p. 565, written by Mr. G. M. Doolittle, "Plenty of bees; plenty of honey," that is worth the whole amount of the subscription to beginners, let alone all the other good articles.

As I have not sent in my report for 1880, I will now do so. I opened the season with 40 colonies of bees; 12 of the number were good, strong colonies—the others were very weak. The 12 gathered 700 lbs. of comb honey; two of the twelve, where I could side-box, thereby getting on 68 2-lb. sections at once, obtained for me 250 lbs. I had 100 lbs. of honey stolen off the hives this last fall. My honey sells readily for 20c. per pound, it being mostly white clover and goldenrod. The other weak colonies being in fine condition for winter, and what is best of all, are all Italianized. I have but 2 black colonies in my apiary. My colonies increased from 40 to 64; sold 1, leaving me 63, all packed in chaff, in their winter quarters. In the spring I will give my method of packing in chaff. I sold 5 Italian queens.

Now, I will give my method of introducing queens, which I have discovered and adopted as the only true method. It is this: Take the queen from the hive you wish to introduce another too, then take all brood combs from the hive, that is those combs that contain eggs, larvæ and sealed brood; fill up the vacancy with combs of honey or foundation from other hives and place the brood in other hives in their places. Close the hive and in a few minutes great excitement will prevail in the hive, rushing out and up the sides of the hive in wild confusion. Now drop the queen right among the bees, and the excitement will immediately stop and the queen will be safely introduced. I have introduced several valuable queens by this method with success. Of course, you must always wait until this excitement prevails and success is certain.

North Nassau, N. Y., Jan. 5, 1881.

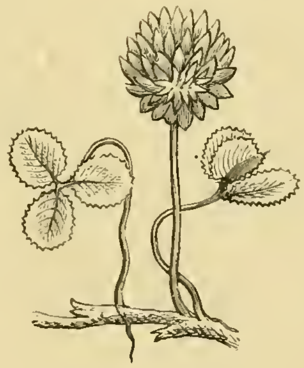
For the American Bee Journal.

Two Queens in One Hive, etc.

J. D. ENAS.

The December number of the AMERICAN BEE JOURNAL notices two queens in one hive. I was at the Mechanics' Fair, at San Francisco, last August and September, for three weeks. When I returned home, as soon as convenient, I examined several hives. One had a young queen; I supposed at the time that the old one was superseded; in about a fortnight after, I did not find her, as I supposed, but found a queen with only one wing, the other gone entirely. I supposed it to be the old queen. I make a practice of clipping one wing as soon as proved to be laying, although I leave at least a half; but she had wings on only one side. Her color was duller than the young one, when I observed her before. I was in doubt about which queen was in that hive. The first week in December having occasion to look over the hive, I found the young queen with perfect wings, apparently all right, and at home on the combs. By the shape, I should judge that she had been fertilized, but there were no eggs in the cells from first to last, and the colony was only about medium. There are no flowers in bloom at present, and very few colonies have brood.

Melilot or Sweet Clover.



White or Dutch Clover.

I observed my Italians gathering worm-dust from an old decayed tree, as a substitute for pollen. I find very little pollen either old or new in the hives. We generally have the manganita in bloom from the middle of November, but it has not commenced to bloom yet. Our unusual heavy frosts have kept it back. The rains are backward, and the new grass has just begun to make its appearance. My bees are in good condition, but colonies are not large. I have not extracted any honey since June; have plenty of goldenrod honey for wintering. I save all my dark honey in the frame, and keep it for wintering. Moths are destroyed by fumigating with sulphur. I consider it a better way to melt up empty comb and give foundation in the spring. My cappings furnish me with enough wax, with what old comb I melt up, for my own use without buying.

We had a very short season for surplus in this neighborhood. With 47 colonies in the spring, I obtained about 1,800 lbs. of extracted and 350 lbs. of comb honey, and have 100 Langstroth frames of goldenrod, all sealed over, for feeding between now and spring, increased to 70 colonies, besides rearing about 50 young queens. I sold and reduced to 60 colonies, mostly pure Italians. I found it very hard to get honey in small frames the nights being cool and the season not over 6 weeks, at most. Swarming was backward; my first swarm came off May 10th. They come out generally in February and March.

On account of the late and cold rains, queen-cells were cut down by the bees, and in one instance I found 8 queens in a first swarm. The old queen was superseded. I saved 7, one was killed in the cluster, and I had to do considerable work in a heavy drizzling rain. Owing to sudden and frequent showers, many of my cells were hatched in an incubator, and I even had to keep them and feed them several days for clear weather. I lost a good many virgin queens on that account in introducing them.

I like the introducing cage mentioned in the AMERICAN BEE JOURNAL so well that I shall use no other. I have had considerable success with it. The first time I used it, I had a queen out of a hive 14 days, had no hive ready, and so I put her in with another queen, in one side of the hive, with no division-board. Four days after, I found the 2 queens on different combs at home, I made two colonies successfully. That was in September, 1879. I always recommend it to others, especially to a novice.

I find that the Langstroth frames mold here in the winter, and they hold too much for comb honey, so I have made hives this season 2½ in. shorter in length of frame, which give me better satisfaction. I use the same surplus apartments; have no portico, but the front projects about 3 inches. The hives are ready for surplus sooner, and the bees are forced into the sections sooner. To illustrate: I had a swarm come off on the 13th of May, 1880; the queen, with clipped wing was on the ground. I removed the hive to a new stand; as soon as bees were out I put a new hive on that stand; gave them one frame of brood and stores, 2 frames of stores in drone comb, and 7 empty frames. On the 15th, I took away 20 empty frames, placed 2 of drone comb in each side of the hive, and the 7 frames of foundation (full sheets). In just 7 days, on the 22d of May, at the entrance, something looked suspicious. Expecting to see the foundation on the bottom, I opened the hive, and found the foundation all built out, full of honey, and nearly capped over; I took out 5 frames, gave them 5 empty combs, and put on 27 sections, 5½x6x1½. Just 3 weeks from that time, I took off 21 sections, solid, and 5 frames sealed over; the other 6 sections from ½ to ¾ filled; but as the honey flow was cut short, I gave them to other colonies. I obtained about 75 lbs. of honey from this colony, of superior quality. I did not sell any of my honey until October, and shall dispose of all of my surplus at fair prices, and my honey has a good reputation. I have to compete with honey, repacked, at the fruit factories, at San Francisco, and labeled "Orange Bloom Honey." Perhaps all the orange is on the label. Wherever I can leave a sample, I do not fear for the result. I use the best of machinery, even if I have to pay high express charges to get it, and my honey is clean and pure. I have it in different styles of packages, and even on draught, to suit different customers.

It is difficult to save empty combs here, as moths will breed, I think the whole year; but in the hives that I use, my bees will keep the combs free from moths, even if they do not cover ¼ of them.

Napa, Cal., Dec. 13, 1880.

For the American Bee Journal.

Bees Dying in Indiana.

E. C. FARQUHAR.

In the the spring of 1879, I bought 2 colonies of bees in box hives, transferred them to movable frame hives, and at the same time divided them, making 4 colonies—2 of them queenless. But they soon reared queens, and done well under the circumstances. I then bought another colony, transferred and divided as before, also bought 1 young swarm, and by fall I had 13 colonies, and 1 natural swarm left me after it was hived. All went into winter in good condition. I also obtained about 100 lbs. of surplus, and had plenty left to winter on. One colony lost its queen in the spring, and I united it with another. During the winter I bought 5 more colonies, and took 19 on shares; 3 of these starved, and two were destroyed by worms. Thus when I had them all transferred and straightened up, I had 31 colonies, I increased to 43, but obtained no surplus worth naming. I hired Mr. Cramer 2½ months to attend to my bees, while I made hives and attended to the farm necessities. My expenses for the season, for hire and material, was about $115. my income for hives, transferring, &c., was about $103. I have on hand hives and lumber worth $70, empty vessels for extracted honey (which I did not get). worth $7. So, you see, my time and labor was not all loss. I have a shop 14x20 ft. square, with a room up-stairs. At the back, or east side of the shop, is a shed extending 54 ft. east, and 10 ft. wide, high enough to walk under. Here I have my bees arranged in 2 rows, fronting north and south, on trestles 6 in. high. This makes an aisle 4 ft. wide between and at the back of the hives, so the passing bees do not interrupt me in handling them. This fall when preparing them for winter, I turned the north row to front the south, and weather-boarded the north side and east end of the shed, the shop forming a wind-break on the west.

I was sick in the fall, run behind with my work generally, and did not get to prepare my bees for winter until after the cold spell in November, and I found several colonies dead. Bees are dying in this locality badly. They seem to have a dysentery. I think I will lose my entire stock. I have 1 Italian queen which I bought of W. O. Pearce, Winchester, Ind., he said he bought of T. G. Newman & Son. She is a fine queen, gentle and prolific. I also reared a few very fine queens from her last summer; but I fear I will lose all, for they are dying in every hive. I have a thick woolen absorber over each colony, but the trouble seems to be impure or unhealthy honey, causing a dysentery.

Since writing the above I have seen some more of my neighbors who had a few bees, but all were dead but 1 colony.

Another man had something over 60 colonies, all were dead but 2 about 2 weeks ago.

Trento, Ind., Jan. 1, 1881.

For the American Bee Journal.

Lower Ventilation, Adulteration, Etc.

WM. CAMM.

Let me say to friend Shuck that I used a much finer mesh, in the wire I put over my lower ventilators than he recommends, for I was afraid of giving the moth-worm a chance to get through and build its cocoon under the bottom-board. It seemed so distasteful to the bees, as they waxed it all up at once, that I gave it up. By all means our best way would be to so pack, or wrap up the hives, as to prevent condensation and subsequent congealation of moisture. Where hives are double, like the Armstrong, for instance, ventilation of the outer case is sufficient in the hottest weather, and with the entrances wide open, I have had such a hive stand in the broiling sun and not a comb melt down, though all around and about the frames and sections, was air-tight, as the bees always make it if they can; and I think we ought to be guided by the instinct of the bees themselves in this matter. The bees seal up everything they can, except the entrance, about that part of the hive that is immediately about them, and outside of that man should use his skill and ingenuity. There is much about what we call animal instincts that we have not fathomed yet, and I am loth to force upon my bees a condition against which they so persistently rebel. Pitch up the eyes of a bat. and yet he can fly safely in a room where there are many objects for him to strike against; throw a squirrel from a height of several hundred feet with only jagged rocks to alight on, and he will suffer no harm; so when I see my bees so strenuously try to stop all lower ventilation, I conclude that it is something else that is required, not that.

Though I do not believe that any amount of direct legislation against adulteration will avail much, yet to keep the matter before the people will put them on their guard, and they will be chary of buying unless they are sure the article they buy is genuine. The great and final remedy for adulteration will correct other forms of swindling, cheating and many other crimes. In the foundation of our social system, and our laws, we have unfortunately made two very great mistakes; we recognize gain as legitimate where there can be no natural increase, and we recognize no wrong, no violence to humanity, in trafficking and speculating in that which sustains human flesh and blood, though we call trafficking and speculating directly in human flesh and blood slavery; yet so far as results are concerned, the effect is the same. Correct these fundamental errors and the spoils being no longer to the shrewdest, adulteration, with many other sins, will disappear. There are plenty of other papers in which questions of this kind can be discussed, and I only refer to it here because it is relevant to the subject.

Bees have had one or two short flights in the last two months, and a week ago one of my lightest colonies, in a single-walled hive, unprotected, were at home and cheerful. This colony has been dropping fresh brood upon the bottom-board all winter.

I am much pleased with the change from the Monthly to the Weekly, and hope that you will find it profitable and pleasant to continue it in this shape.

Winchester, Ill., Jan. 22, 1881.

For the American Bee Journal.

Size of Colonies, Ventilation, etc.

E. B. SOUTHWICK.

I notice in the report of Mr. E. A. Morgan that he thinks 3 pecks of bees a good colony, and that each of his 24 colonies would measure that amount. Now my frames are 12x13 inches. I place them ⅜ of an inch apart, when the frames are full of brood or honey it would take a hive of 27 frames to hold that amount of bees—just three times as large as my hives are. Is not his statements a little large. I believe that bee-keepers consider that if they have a strong colony of bees that cover 9 frames, the size of mine all over, in the working season, they have a strong colony. When bees are working in a hive they require at least twice the room they occupy when clustered together in a measurable form. So really a good colony is about 4 quarts of bees.

My opinion of colonies is that a peck of bees constitutes a very strong colony; that 4 quarts is a fair sized colony; that 2 quarts is a small colony, yet not too small to be safely wintered in a judiciously arranged hive. I have wintered many such colonies, crowded on 4 combs, and found them as profitable as any I had.

I notice in another place a very excellent article on wintering, by the same author. It is first-rate, though rather expensive. I think there is one mistake in it, about upward ventilation. He says the impure air being carbonic-acid gas and heavier than air, will settle to the bottom and escape. This is true, were it pure carbonic-acid gas. Now let us see what are the facts in the case: The air is composed of 20 parts of oxygen to 80 parts of nitrogen; chemically united it always carries with it a quantity of water in the form of vapor and some other matter that we will not notice. Now, as air is drawn into the lungs the oxygen unites with the carbon of the blood, forming carbonic-acid gas, which is absorbed by the mixture in the form of vapor, and mixed with the 80 parts of nitrogen, forming a chemical mixture which, when breathed out is much lighter than air and is found in the upper part of the hive in the form of frost or water, unless we have an upward ventilation to allow it to pass off. I would not recommend placing a stovepipe over the bees to let this pass through, but rather a thick chaff-cushion which will allow this foul stuff to pass into it if not through it and not admit the warmth of the bees to pass off.

I notice in an article by D. K. Boutelle, his experience with some eggs of the queens; if he is correct does it not prove that the queen does not regulate the sex of her offspring. I never could accord that power to the queen. I believe that the sex of all the animal kingdom is regulated by the situation and nutriment of the egg or germ. Who says it is not? There are many theories about bee-keeping which we may make doubtful.

Mendon, Mich., Dec. 10, 1880.

For the American Bee Journal.

Upward Ventilation.

F. H. MINER.

I believe I was the first writer in this country to oppose upward ventilation, in discussions with Mr. Baldridge and others in the BEE JOURNAL and *Prairie Farmer*. A storm of indignation was aroused, but almost every man had seen bee-trees, and knew they had tight tops to keep out the storm and keep in the heat. The united and learned array of acknowledged authorities lost their prestige; facts could not be set aside by theories. Only those who had that "dangerous thing, a little learning," were wild enough to ignore instinct and sneer at nature. Anybody may preach at them now, but they still persist in covering bees with porous cloth, depriving them of heat and water, essential to life. The bees do not tolerate this stupidity, but glaze them over whenever they can.

When I read Mr. Langstroth's directions to give the bees a little water on a sponge, I thought they glazed the inside surfaces, and the cold that confined them condensed the water that they needed. But if we cover them with porous absorbents (cloth) the water may be needed (see JOURNAL, page 11).

The swarm of hive inventors, while the waves of oblivion are rolling over their constructions, delight to sneer at the old log gums. Each one has found perfection, but every 2 or 3 years repudiates his old humbugs, gets up a new one, and only gets out of the mud into the mire. I loved bees, and laid awake nights contriving a hive, and found that I did not know anything. In my despair the thought occurred: the flight of the bees to the hollow tree proves they were designed for and adapted to each other. I have since then been a student of nature. Artificial circumstances and necessities require artificial adaptations. We should not use gums, but we must go to nature for principles, and respect instinct.

There are here a few old bee-keepers who raise their hives from ½ inch to 2 inches, on blocks, to get rid of the moths. I thought they would be too cold and exposed to mice and robbers. I depend on a fly-hole 3 inches above the bottom. I bought some of my bees of Simeon Burkett, 5 miles north of Watseka. Last spring he had 90 colonies in good condition, and says they wintered well the year before when so many (more than three-fourths of the bees in this county) died, mostly smothered, having no fly-holes in the side, only notches cut with a saw in the bottom. Severe cold and contraction, followed by excitement and expansion, outlets closed, no air to generate heat, profuse perspiration condensed and freezing with dead bees at the bottom. One man with 22 colonies, another with 30, lost all; several others nearly as bad. But the bees on blocks came through and kept dry. The mice got in some, and some were robbed.

They should have been set down on the approach of spring. Bees need very little air when quiet in mild weather, and keep fly-holes clear. I wintered 48 on the summer stands without loss, covered with snow in the coldest weather; 3 or 4 failed through loss of queens in the spring. These bees are doing well this year. The hives are 1 foot square, but those I bought from Mr. Burkett were tall, populous ones; the holes I bored in front were not large enough for so many bees in such severe weather, and I have lost 2 colonies, and a good many bees in others. So, let us give our bees plenty of lower ventilation.

I suppose 10 or 15 times as much air is needed in a cold snap, because 10 or 15 times as much heat must be generated to maintain a living temperature. The ranges of comb attached at the top and sides divide the room into narrow spaces. A hole in the side might not aerate thoroughly more than one or two spaces. Only from the bottom, where the comb is not attached, can all the spaces be equally aerated. These old basswood-gum men, who believe in tight tops and hate frame hives, never read the JOURNAL and could not know much. In a futile attempt to get rid of the moths, they simply blundered on a successful method of aerating their bees, and thus preventing smothering. If they knew they had solved the problem so many have studied in vain, would they not crow? They have my thanks. I thought so much cold air would freeze the bees, but find it the only thing to keep them warm and dry, thus preventing their being poisoned by a mass of rotting bees under them. They should be protected from the wind. An inch at the bottom all around would not lose as much heat as a ½-inch hole in the top.

I expect to hear of great losses this winter from smothering. In 1878 I wintered 48 colonies on their summer stands, in hives with tight tops, and covered with snow in the coldest weather. The last 2 years have been poor. My square hives have been all right, but the tall hives—18 to 24 inches high—the small hole I put in the side was too small in severe weather.

Crescent City, Ill., Jan. 17, 1881.

For the American Bee Journal.

Shall we Improve our Bees?

HENRY ALLEY.

Now that we have the Italians, Cyprians, Holy Land and Hungarian races of bees, it strikes me that our bees can be improved very much. How best to do these things is the question. Can it be done by keeping the imported stock pure, or by crossing? I think it can be done by both plans.

It is a well-known fact that by crossing up fowls we get a larger, as well as a hardier race; now this same principle applies to most everything in the animal kingdom. In rearing chickens the male should be changed for each succeeding brood. In-and-in breeding would soon run out a coop of fowls; they can be bred "to a feather" by in-breeding, but that quality would be at the expense of health and hardiness. Now, this must work the same with bees; but I must confess the fact that there are cases that seem to knock my theory into pieces. I have found farmers who have kept bees in the same place upwards of 40 years, without any indications of deterioration. I found one such last fall. I came across a man who had 10 colonies of bees, all black, and in old box-hives, as a natural consequence. He told me that he had kept bees in the same place over 40 years; and had never been out of them during all that time, and he could not say that they had ever returned him any heavy income. Of course they did not pay him much, neither did he devote much time or expense on them. He had one swarm early in May last, and remarked that he never had one so early before. Now, these are stubborn facts, and rather against our in-and-in theory. But it should be remembered that not as much in-and-in breeding would be done in this case of 40 years' standing as an extensive queen-breeder could do in 2 years; while the old farmer would not rear more than one queen to each colony each year, the queen-breeder would rear hundreds.

Notwithstanding the above facts, I do believe that close breeding will ruin any race of bees. Now, in all my experience in rearing queens, I never permitted the queen that I was breeding from to rear any drones. I have reared 3,000 queens from one mother, and never saw a drone from her, and none were ever raised from her eggs. If good queens are what we want, then of course the less in-and-in breeding the better.

Will it do to cross the pure Italians with pure Cyprian or Holy Land queens? I think it will; in fact, I know it will. The way is now open so that we can obtain a superior race of bees; by careful breeding and crossing-up the desideratum can be reached, in a few years. Now, here is another point: Have not the Holy Land and Cyprian bees been in-and-in bred as well as the old farmer's above alluded to? Of course they have. The natives of the Holy Land and Cyprus Island care nothing about improved bee-keeping. If these bees, in their native country, are superior to ours, then we can improve them, without doubt, so that they will be much better. Does not the reader see that by crossing these races we can improve them? Of course he can see it; and believe it, too.

If it were not for the honesty and reputation of the dealer, many of those who have purchased Cyprian and Holy Land queens would say that they are beautiful Italians, and nothing more. The keen observer and practiced eye will discover the peculairities of the Cyprian bees, even though they look and appear like pure Italians.

I think I can perfect a race of bees the coming season that will be superior to anything we now have; in fact, I now have some queens that are very large and handsome as well as unusually prolific—a cross between the pure Cyprian and Italian. I cannot say about their working qualities, as they have had no chance to do much since they came into existence in August, 1880. Now, I am intending to rear queens from these improved mothers to introduce into my own colonies. They will pass for pure Cyprian or Italian queens; few can tell the difference. If these queens will lay eggs in proportion to their size, it will be necessary to enlarge the Langstroth hive to twice the usual dimensions. These queens are the result of careful breeding and crossing.

The reader will see I am in favor of crossing the Italian and Cyprian. Who can doubt for a moment that by crossing with pure Cyprian and Italian bees that we cannot get a superior class of workers? By crossing we shall undo in-and-in breeding that our bees as well as the Cyprians, have been subjected to for years. Remember, that the bees to be crossed should be selected from our best, purest handsomest and most prolific. Now, here are my ideas for improving our bees. If any man has a better way, let him rise and say so.

Wenham, Mass.

For the American Bee Journal.

Giving Bees Water in the Cellar.

E. A. THOMAS.

Several years ago I had 3 or 4 colonies get very uneasy in the cellar during the latter part of winter. I tried to quiet them by giving them more ventilation, but it was of no use, they continued to grow more and more uneasy towards spring. The weather was still too cold and unsettled to put them out, and I had about given them up for lost, when I concluded to try an experiment. I thought the reason for their getting so uneasy was because they were breeding, and as I knew bees consumed large quantities of water when breeding, I concluded to try and make them take water in the cellar. I made holes through my chaff mats and inserted bottles of water with cotton cloth tied over the nose, letting the bottle come close down to the cluster of bees. The effect was almost magical; they became perfectly quiet and remained so until taken out of the cellar. These colonies and a large amount of brood and were hatching bees quite rapidly when taken out in the spring. The next winter I determined to experiment a little further with water. I prepared half of my bees so that I could give them water in bottles, and about the first of February I commenced to give it to them, and continued to do so until spring. As they were so very quiet, I thought I would see what they would do if their water was taken away from them. Accordingly, I selected one of the colonies that had taken the most water, and took the bottle away from them. They at once manifested their disapproval by making an uproar and boiling out of the hive into the portico. I put back the bottle of water, and they immediately quieted down and remained so. Now for the result:

When taken out in the spring, I found that the colonies I gave water had plenty of hatching bees and from two to four frames of brood, while the others had but very little sealed brood, and some none at all. Last winter I gave water to all my bees, which enabled me to keep them in the cellar perfectly quiet until all danger from spring dwindling was past. I never saw a lot of bees in as good condition the first of May—strong in numbers, and with plenty of hatching brood.

Doubtless, many will think that it is too much trouble to give their bees water, and I think myself that it is quiet a chore, but it is these small chores that makes bee-keeping a success.

It takes a man of good judgment and a keen insight into the, habits and requirements of our little pets to make a good bee-keeper. I think bees need a great deal of attention and care during the winter, especially towards spring, when the weather begins to get warmer.

Coleraine, Mass., Jan. 25, 1881.

SELECTIONS FROM OUR LETTER BOX

Away Down East.—I had 30 colonies of bees last fall in pretty good condition, which I packed for winter. They are in the Quinby standing and Eclectic hanging frame hives, packed with rye, oats and buckwheat chaff—some put in loose and some in cushions. My bees have not had a flight since about the middle of November last, but appear to be all right. Some hives are nearly covered with snow. Besides the 30 on the summer stands, I have 11 nuclei in the cellar, with 2 and 3 frames each, strong in bees and honey for the number of frames. There are 2 and 3 colonies in one hive, with thin division boards between. They are all right so far. I will report next spring what success I have in wintering them.

ROBERT DOWNS.

Naugatuck, Conn., Jan. 28, 1881.

Struck by Lightning.—A few years ago I had my bees placed in rows in round gums; lightning struck 2 of the gums, bursting a good-sized piece out of one, and quite a sliver out of the other. I thought that every bee in the hives was killed; in a few hours they came crawling out of the hives. It looked as though all the bees had clustered on the outside, and they would not fly for three days unless something came near them. It made them the worst bees to sting I ever saw. In one of them I hived a swarm 13 years ago last June. It still remains a prosperous colony. In 10 years it has only swarmed twice, and has wintered on the summer stand. I keep it to see how long a set of combs will last, or the colony die. A few years ago a man named Hastings came into this neighborhood, who said that a set of combs would last 16 years. Mr. Hastings died at Carlisle, Iowa, 2 years ago.

HIBERT CLARK.

Palmyra, Iowa, Dec. 6, 1880.

Bees Uneasy.—Since I wrote you last, I notice that some of my bees appear to be troubled with dysentery. Those affected, are all young natural swarms which issued in the latter part of July and in August. They had not stores enough to winter on, hence were fed from October 1st until the 15th, coffee A sugar syrup, enough to carry them through. I have built an extra No. 1 bee-house for them, with double walls, filled with chaff 12 inches thick; but the house is left open towards the east. Within this chaff-house I have packed my bees in chaff, leaving an opening for the bees as recommended by Prof. Cook for out-door wintering in chaff-boxes; but ever since the middle of November none of my bees have had a flight, and on the 23d of November they were packed. Now lately I notice that some bees have come out from those colonies which were fed, and it seems as if they soil somewhat the entrances of their hives. Would it be advisable to remove the front part of the packing arrangement on warm days (if we get any), enlarge the entrance, and thus induce them to take a flight; or would you advise me to let them alone? All my bees are well cared for. They have good, well made hives, they are properly contracted by chaff division-boards; they have nice woolen quilts to cover them over the brood-chamber, and the top covers are filled in with clean and dry straw. In lieu of honey, they were fed with coffee A sugar, and they have not been disturbed the least since they were carefully moved into their winter-quarters. The entrance tubes are protected against mice, by wire-cloth, but space is left for the bees to come out. What can I do to bring them relief?

WM. STOLLEY.

Grand Island, Neb.

[Better let them alone till safe for them to fly; undoubtedly the long confinement, and the feed given them having granulated, has caused the symptoms you complain of; or, may be, they have commenced breeding pretty extensively, which frequently causes unusual activity among the bees, and a necessity for voiding their feces follows activity.—ED.]

Heavy Rain-Fall.—Enclosed find statement of the rain-fall at Vicksburg for the season, from January to November, 1880, which will about tally with our locality. You will see what chances a bee-keeper had.

O. W. BLANTON.

Greenville, Miss.

"The unprecedented rain-fall of this season will long be remembered as the most calamitous that has ever visited this portion of the great cotton belt. To the courtesy of Mr. Guthrie, the officer in charge of the weather and signal station in this city, we are indebted for the following valuable and authentic figures, showing the aggregate amount of water, measured in inches and hundredths, which has fallen from the clouds during the eleven months of the year 1880 which have now passed away:

January	1.85	inches
February	4.60	"
March	11.23	"
April	9.09	"
May	5.99	"
June	6.36	"
July	4.89	"
August	5.67	"
September	10.51	"
October	5.75	"
November	14.15	"
Total	90.09	inches

This makes the enormous aggregate of seven feet and six inches of rain in the space of eleven months; and when it is remembered that the average of the rain-fall in this latitude, taking a series of years by decades does not exceed fifty-five or sixty inches annually, the immense down-pour of water for the present year is still more apparent."—*Vicksburg Commercial.*

A New Subscriber.—I am well pleased with the Weekly BEE JOURNAL. My bees had a fly to-day, and are all alive and doing well. Owing to the severe winter, I have my bees packed on their summer stands with hay on the north and west. I have packed them for the last 4 years in that way, and have had good success.

DAVID HOHENSHELL.

Collins, Ill., Jan. 31, 1881.

Temperature in Cellars.—Bees here are wintering very poorly. Many of them are dying in this section and east of here, generally, where they are kept out-doors without much protection. Our bees in cellars are all right. We control the temperature which cannot be done so well out of doors.

J. V. CALDWELL.

Camargo, Ill., Jan. 22, 1881.

Doing Well.—I like your Weekly very much and when my 6 months are up intend to renew. Bees all packed in chaff and every one (21 colonies) answered to roll call yesterday. Have not had but one fly since 2d of Nov., and that on Dec. 13. With the many others I wish you a prosperous New Year.

J. W. KEERAN.

Bloomington, Ills., Jan. 17, 1881.

Kentucky Notes.—I have been itching to write you congratulatory upon the shape of your new Weekly BEE JOURNAL. As the ladies say, "it is just too nice." I wanted to get more data from our bee-keepers, which is not over-encouraging, for about two-fifths are dead and the balance to hear from on the 15th of April. Cause—last year was the poorest honey season in the memory of the "oldest inhabitant," and it being the second consecutive poor season, many did not recuperate from the previous year, and this winter, the hardest in the memory of the aforesaid, and lack of interest, from loss of same (@ 25 per cent.), all combined, left the few poor bees illy prepared to come out with flying colors. My own apiary (20 colonies) is in excellent condition, plenty of stores and strong, large clusters. I examined them to-day and am much pleased, they are having a fine flight to-day. In my next I will give my experience in wintering, if it should not trespass too much.

W. VAN ANTWERP, M. D,

Mt. Sterling, Ky., Jan. 30, 1881.

Fertilizing Cage.—I hope you will give M. B., of Fincastle, Ind., a hearty welcome and encouragement on the subject of fertilization in confinement. I ask this of you, because I know you have very little faith in its accomplishment. I wish you had given the full name, for it is hard to wait for his arrangement. I want to get ready for another summor's practice, if there are any bees left after this cold weather. Give all the cream in the Weekly, no matter where found. With it and a successful fertilization cage, and plaster of Paris foundation mould, and a live bee-man, success must be had.

LOUIS HOFSTATTER.

Louisville, Ky., Dec. 31, 1880.

[We must confess to considerable incredulity regarding successful fertilization in oonfinement, to the extent to make it practicable, although no one would hail the successful solution of the problem with more gratification. We have no doubt "M B." will give full particulars of the *modus operandi* in the columns of the BEE JOURNAL at the proper time.—ED.]

In the Cellar.—I have received the first number of the Weekly. It is nice to have it weekly, but I fear it will get destroyed, or torn and soiled. We saved from robbing and starving 84 colonies, from which we have 119 in the cellar and 6 out-doors. We have taken off about a ton of surplus, mostly basswood, and about half a ton on hand. Bees can be wintered almost anywhere sometimes, and sometimes not anywhere. We have always wintered in the cellar, and have never lost any that were in condition to winter when put in. Three of us put away 100 in 3 hours, and take them out in the same time. The bee cellar is partitioned from the family cellar by building-paper, made perfectly dark. The hives are piled in rows 7 high, like cord-wood, with the front entrance open, and no other ventilation. We keep the outside door open most of the nights, which keeps the air pure; the dead bees are scraped out of the hives and cleaned out of the cellar. We put them in before very cold weather, and keep them in till spring. I am satisfied that money paid for the JOURNAL is the best investment that can be made of $2, if a man has 5 colonies of bees or more. We used about 100 lbs. of foundation last season, made on Olm's machine, and have yet to see any that I think equals it; at any rate, it is all we want. The cards of comb are as true as a board, and the bees accept it immediately.

THOS. TRACY.

Nashua, Iowa, Dec. 27, 1880.

On Summer Stands.—I have taken the BEE JOURNAL since 1871, and do not like to do without it. I have 106 colonies of bees, all in good condition, on their summer stands, which I think is the best place for them, after trying various ways of wintering.

P. D. JONES.

Mt. Morris, N. Y., Dec. 31, 1881.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR,

CHICAGO, ILL., FEB. 9, 1881.

Accumulating Disasters.

From every point of the compass,—north, south, east and west—come tales of losses and disaster in wintering. The poor honey yield of last season, combined with the early advent of cold weather, and its long continuance without even a slight intermission to admit of a "fly," is telling with fearful mortality among the poor bees; and many bee-keepers who met with discouragement in the spring, and with whom there was no encouraging yield during summer or fall, and now have lost even the few they had left, may well be pardoned for becoming "blue" over the prospect in future. Many fed their bees enough to last till the traditional "January thaw" took place; but January has come and gone, and no moderation of the weather has taken place of sufficient length to give the bees a good flight, or allow of feeding. In this latitude cold weather set in during October, and caught most of the bees not yet properly prepared for even an ordinary winter, and too many are in that condition yet. Ordinarily, there is plenty of good weather in November for feeding and packing bees, or putting them in the cellar, but this has been an exception. Then, in January—certainly by the 20th, generally sooner—a mild spell and thaw of several days' duration has occurred, when bees could be fed and looked after; but this winter one cold spell has but partially moderated to be succeeded by even colder weather; snowstorms have abated only to be followed by stronger ones; western winds have changed only to "nor'-westers" and northers; our balmy breezes have been transformed into "blizzards," and the gales have assumed the proportions of hurricanes and tornadoes.

Not alone in this latitude have these extremes occurred. From Canada to Texas, Minnesota to Florida, Maryland to California—all over the Continent—come reports of weather without precedent. One correspondent no sooner complains of the weather at 15° below zero in his locality, than another puts him to shame by writing of the 40° below in another location. Railroad trains have been irregular as a rule—not as the exception. From England and the Continent we learn the epidemic of extremes also prevails. Bee-keepers there, as here, have become quite familiar with the oft-repeated line from Shakspeare—

"Now is the winter of our discontent"—

but the remainder of the quotation is ignored, for nothing has tended to make it "glorious." With many, already, the uncertainty of wintering has been relieved by the *certainty* of loss, and others await with anxiety the slowly approaching months of March and April to put an end to their doubts and misgivings.

It has been truly said, "there can be no great loss without *some* compensating gain," but perhaps in this case the gain will be principally in bitter experience. Opinion has been greatly divided as to the best method of wintering—whether on the summer stands or in the cellars; whether with chaff-packed hives, air-walls, over-absorbents, lower ventilation, or no ventilation at all. New theories will be promulgated, and old ones abandoned or confirmed, while the "I told you so" class will be more persistent than ever, should their theories and claims be substantiated by success. Should the bees all be dead in an apiary, there is still the consolation of having the hives and combs left, and the total loss is but partial, after all. Most of the sufferers will not be discouraged, but with hope of better success in future will try again, and with the experience of the past to guide them in the work to come, must succeed in overcoming all difficulties, and their labors will be crowned with victory.

It will be interesting to scan our columns when the result is fully known, and compare the various methods of wintering with the different degrees of success. Of course, very many will come through the winter with but trifling loss, but the majority of bee-keepers will, in years to come, recall the winter of 1880-81 as the season of disaster to bees. The BEE JOURNAL will possess a peculiar interest to all, affording an opportunity to avoid the errors of the past, and containing timely suggestions from its many contributors for guidance in the future.

After all, it is refreshing to read the prediction of Dr. Brown, of Georgia: "Without consulting Vennor, or any other of the prophets, I prophesy that the year 1881 will most abundantly reward the industrious bee-keeper."

Colchian Honey.

As bearing upon the frequent allusions to poisonous honey, Mr. H. G. Colwell, of Columbus, O., quotes from ancient history the following in reference to the famous Colchian honey. We have frequently seen allusions to this honey and its singular effects, but have never been favored with a satisfactory solution of the problem he propounds. Perhaps some of our learned contributors can give the information desired.

During the retreat of the famous Ten Thousand from Asia Minor to their homes in Greece (B. C. 401), they passed through the territory of the Colchians. The country literally flowed with milk and honey, the soldiers were well received, and refreshed themselves after the innumerable hardships they had undergone, by a repose of thirty days. They partook of the Colchian honey, and it produced a singular effect upon the Greeks. It was very well flavored and inviting to the palate, and when eaten in small quantities caused a species of intoxication; but those whose gluttonous appetites lead them into excesses, were seized with violent fits of vomiting and diarrhea and sometimes thrown into a state resembling madness.

Query:—Why did the ancient Colchian honey cause the above disorders?

☞ The editor of the BEE JOURNAL is now absent. He left Chicago on the 31st ult., to attend the Northeastern Convention, at Utica, N. Y., on the 2d, 3d and 4th inst., and will return *via* Ohio, to attend the Convention at Andover, O., on the 8th and 9th inst. He left in a snowstorm, which prevailed during the whole trip to Utica, where he arrived 9 hours behind schedule time.

Food Adulterations.

It is gratifying to contemplate the general interest being awakened on the subject of food adulterations, in all parts of the country. Not only are the masses of the people, individually, falling into line, and closing up the ranks of the great army of opposition to fraud and swindling, but societies, corporations and communities are becoming awakened at last, and the good work is beginning to assume shape and dimensions that will eventually demand active recognition in the halls of Congress. Every mail brings letters encouraging us in the good work we have commenced of an unrelenting warfare upon this dangerous and enormous system of thieving. Meantime, let the agitation be continued, and everywhere denounce the sale of any article, whether in quantities great or small, by any other name than its proper one. We expect shortly to be able to present our readers with a perfected bill embodying our views, and providing for a general remedy to all classes of honest producers. The matter is now under consideration by an eminent jurist and legislator of Iowa, and we have no doubt it will meet the long-felt wants of the public, and give our readers a basis or standpoint upon which to work.

We are satisfied a general law will be the only redress, and our former belief regarding the futility of special legislation by State bodies, is strengthened by scores of letters and congratulations. In confirmation, we give the following letter written by Prof. J. Hasbrouck, to the *Bee-Keepers' Magazine*, and published in the February number of that paper. As it explains itself, we will make no further comment at this time:

Probably many of your readers will be interested to know the fate of the effort to enforce the law passed by the Legislature of New Jersey in the winter of 1878-79 against the sale of adulterated honey. In the early fall I gathered 15 or 20 bottles of what is sold in the groceries of Jersey City as "choice honey," and, upon analysis, finding them to consist almost entirely of glucose syrup, flavored with a little honey or wintergreen oil, I went before the Grand Jury of the December term of Court in Hudson County, and entered complaints against several prominent grocers of whom I had bought the specimens. I am sorry to say that the "grand inquest" failed to indict. Their reasons I could judge from the questions asked me.

☞ We are sorry to learn of the misfortunes of Mr. A. F. Moon, and feel confident our readers will all sympathize with him. His has indeed been a trying time. The following is an extract from a private letter recently received:

The past has been a most unfortunate season with me. I have received no honey, and had no queens or bees to sell, and have not been able to transact any business, on account of my lameness, which ended in the loss of my limb. In fact, I was compelled to go on crutches all the season. I am somewhat better now, but have not been to our postoffice since the 11th of last May, which is only 2 blocks from me. This, you know, is hard for a man accustomed to walking and stirring around. I live in hopes that this year will be a good one for both bees and honey. We had a few cold days in December, but the weather is warm now; the bees are flying, and some are carrying in bee-bread. By the way, the Weekly came in to-day's mail, which just fills the bill; it is just what all bee-keepers want—a Weekly BEE JOURNAL. Long may it live, with success to its editor. A. F. MOON.

Rome, Ga., Jan. 16, 1881.

Artificial Comb Honey.

The Weekly BEE JOURNAL made its appearance, and I also add my testimony of approval in the change. It will no doubt receive all the support necessary to its successful retention as a Weekly.

The following appeared in the Toronto *Globe* yesterday and surprised me not a little, and as I could not believe a word of it, I wrote to the editor and contradicted it, for could there really be such an institution in existence without your knowing it? You would certainly not think of leaving the bee-keeping fraternity in such blissful ignorance. Well here it is:

"Some unsophisticated purchasers of honey imagine that by buying honey in the comb they are sure of getting an unadulterated article. A great mistake. There is an establishment in Boston where artificial combs—not foundation merely, but combs—are made in such perfection that it would require an expert to detect the fraud. Paraffine, not wax, is the material used. When the combs are made they are filled with imitation honey made from glucose, worth 3 or 4 cents per lb., and flavored to taste. A hot iron is then passed over, the cells are sealed, and the 'comb honey' is ready for sale."

What use will there be for your much cherished coming bee, *Apis Americana*, in the face of such comb honey—making by automatic process in your midst. I hope for a cheerful rejoinder from your pen on the above.

In your number for Jan. 19, your correspondents, Greiner Bros., refer your readers in one of their paragraphs to page 355 (1879), where he has recourse to the what he calls "shaking off process," but I cannot find anything in that JOURNAL on that point. Will he please explain? I am much interested to know how done, &c. I have gone through all the same processes to prevent swarming with the same results as he has, and not only removed every queen-cell, but at the same time took all the honey away from 28 colonies in 1879, and every one swarmed within 2 days after the operation. Colonies that I ran for the extractor, I never had one yet to swarm. I have had them preparing queen-cells and capping it, and yet not swarm, and this all in a good flow of honey, and its preparation not being a supersedure either, for the cells had all disappeared inside a week, and no honey removed from the hive during the time. Of course the colony had all the combs they could cover.

C. WURSTER.

Kleinburg, Ont., Jan. 25, 1881.

Mr. Wurster was right in denying the article in the Toronto *Globe*. We frequently hear, from the unsophisticated, doubts as to the purity of comb honey, and it is not to be wondered at, when almost every delicacy, and, in fact, nearly every necessary in the food line, is adulterated; but the manufacture of artificial comb has never yet been accomplished. Neither do we believe that bees have been seduced into making combs from paraffine wax. So that all may rest assured of the purity of the wax composing the combs in which the bees store their honey. As to inducing bees to store glucose for honey, it is a matter of doubt whether it can be done with sufficient profit to tempt the cupidity of any dishonestly-disposed bee-keeper; and it would require a very skillful bee-keeper to succeed in having it stored and capped over. Again, the feasibility of capping or sealing honey with a hot iron—well, the writer of the paragraph referred to might put in a few weeks very industriously experimenting in that line, and, after repeated failures, he would conclude that the success of the fraud existed only in his inventive imagination. Of course, we make no allusion to the difficult task of depositing the glucose in the cells, which will be found a work requiring considerable time, a steady nerve, and more patience than the ordinary price of comb honey will repay.

On referring to page 355, 1879, we find no correspondence from Mr. Doolittle, to which Messrs. Greiner Brothers refer in the Weekly BEE JOURNAL of the 19th ult., and we leave to them to explain the process to which they refer, as some mistake has occurred in the citation.

Flat-Bottom Foundation.

The following letter from Mr. O. J. Hetherington, was read before the Michigan State Bee-keepers' Convention, held at Lansing, Dec. 8, 1880. The minutes were not received at this office until the 26th ult., so we could not puband them till now. As much interest has been manifested in the subject of using full-size sheets of foundation in the surplus boxes, and as this letter bears principally upon that subject, we give it a place here *in extenso*. The letter bears date East Saginaw, Mich., Dec. 8, 1880:

I was in hopes to have been with you to-day, but as my bees are not in the cellar yet, I do not feel as if I could spend the time, until I get them out of the cold; and it is bearing down so much more heavy than usual, that I feel like working night and day till I get them in.

I wanted very much to be at the Convention this year, as I have several points I would like to present, as to my experience this summer with flat-bottom foundation of full size in sections. I have used it full sized in all my sections but about 200, that I had of last year's, that had triangular starters in, about 3 inches on a side. Using both I could see the difference.

The bees work the flat-bottom as near the shape it ought to be as possible, which compels them to thin it down, so it is about as thin as they make the comb themselves. This year was a poor season, but I think I secured twice as much comb honey as I should if I had not used the foundation full size in the sections. Perhaps in a good season it would not make quite as much difference; but from my experience, the past summer, I know they will make very much more honey.

At the time the bees commenced to gather honey from boneset, they obtained it very fast for two days (that happened to be clear and pleasant), and during those two days the bees drew out the foundation the full length of the cells and filled it with honey; then we had nearly a week of wet, rainy weather so the bees could hardly do any thing, and they did not seem to do much of any thing to the honey in the sections. My theory is, that the weather was so wet and damp that the bees were unable to evaporate the honey so they could seal it up, for as soon as the weather came off dry and pleasant, they had everything sealed up in 24 hours.

Also the Italians will commence work in the sections as soon as the blacks, and they both will commence much sooner than when only starters are used. I would not recommend any thing but the thin flat-bottomed foundation, as that is the only kind the bees will work the base of the cells thin enough to answer.

☞ The Prospect for honey in California is promising. Mr. S. D. Barber, in the *Semi-Tropic Californian*, says: "We find many of our hives with three and four sheets of brood well filled, from eggs to the hatching bee, on January 4th, 1881. The prospect here north of the city indicates an early and prosperous year for business. Be ready. Do your work in time. A day lost with bees is forever lost. What is termed luck with bees is only another name for careful and skillful management."

AMONG OUR EXCHANGES.

GLEANINGS.

Cyprian Bees.—The following is an extract from Mr. Frank Benton's last letter, dated at Larnaca, Cyprus, Dec. 14, 1880. We devote so much space to it as it is a subject on which information is eagerly sought, and but little experience has yet been had in this country:

Under all conditions and at all times of the day, even from daylight until 9 o'clock at night, I have handled Cyprian bees, without smoke, and with no bee-veil nor even a hat on my head. Bare-headed, bare-handed, with low slippers on my feet, no coat nor vest on, my shirt cut low in the neck, and all my garments thin, I have worked hour after hour among the Cyprians just as fast as I could make my limbs and body move, transferring colonies, dividing swarms into nuclei, and putting up queens for shipment, all the while shaking and brushing the bees about just as though they were so many Italians, and a big basswood harvest was on hand. I say *shaking* them, for they can be shaken from the combs quite as easily as can black bees, and *brushing* them is a dangerous experiment unless they are well filled with honey. Now, it must be remembered that all this was done at a time when no honey was coming in, and when feeding had not been kept up regularly, the colonies that had not been fed and those that had having been opened indiscriminately; the handling was often at the most unseasonable hours of the day; and, lastly, there were often many visitors present; yet I was rarely stung, and I recollect but one instance in which a visitor was stung.

The only points I observed carefully were the following: I opened the hives with extreme caution; the quilt was removed slowly, and the bees left to themselves for a moment before I touched the frames; then the first frame was very carefully removed, after which no further especial caution was needed, except that there must be no jarring of frames, either in removing them, in handling, or in replacing them. Any one would be likely to say, "These things are all very good to observe with any race of bees; but will they prevent Cyprians from stinging, when their observance in handling blacks and Italians under the conditions you mention, would avail little as far as keeping these races under subjection is concerned?" It seemed to answer with me, and I discovered that the Cyprians were very susceptible regarding the sudden admission of light into the brood apartment, and they resent in the strongest manner any jarring of the hive or combs. I think they are far more likely to be aroused by either of these things than are the Italians or blacks, and are not as easily subdued with smoke, or, in fact, at all. They will follow the bee-keeper with great pertinacity as he leaves the hive, going a long distance, and even through several doors, for a chance to sting. When a hive is once thoroughly aroused, the better plan seems to be to close it and leave it for an hour or more.

They meddle with passers-by who do not touch them, less, even, than the Italians. The above would likely lead to incorrect inferences should I close this subject without stating the conclusion which the season's work among the bees of Cyprus has caused me to form regarding the relative rapidity with which Cyprian and Italian bees can be handled; hence I state here that I fully believe I can handle the Cyprians with one-half greater rapidity than I can the Italians; that is, with proper management, a given operation in manipulating bees can be performed with three Cyprian colonies while the same operation is being done with two Italians.....

The bees of Cyprus are very uniform—surprisingly so, I think. We obtained colonies at many points distant from each other, and saw bees in many places where no purchases could be made, but all presented the same appearance, taking into account, of course, the age of the bees and the amount of food they were likely to have in their bodies. The true Cyprian is a yellower bee than the Italian; indeed, I think the average Cyprian is yellower than the brightest Italian. I refer to the worker bee alone. Its body is more hairy, and the abdomen more slender than will be found among Italians. When filled with honey, the worker shows three yellow bands, as does the Italian. Mr. Cori, of Bohemia, who first described these bees, and procured the first colony from Cyprus, stated the worker bee has only two yellow segments, but he surely failed to count the end segment, next to the thorax, without which the Italians would have but two yellow bands. The fourth yellow band, as with the Italians, is sometimes seen, but a more distinctive mark is that the segments back of the yellow bands are so tipped with whitish hairs as to give the abdomen of the Cyprian a very ringed appearance. The two most distinguishing marks are, however, the following: The pure Cyprian is yellow on the under side of the abdomen, from the tip nearly forward to the thorax; and, second, the shield on the back of the thorax between the wings is very prominent and plainly yellow. On account of its shape, I call this the crescent, and it shows that its bearers are from the Turkish empire, or descended from those who did come from this far eastern land. The Cyprian drones are in general much more mottled with yellow than the Italians; and though they are not uniform, many are of a very brilliant golden hue.

I find the Cyprians active, strong-winged, sturdy defenders of their hives, fighting against fearful odds to preserve an existence, exceedingly keen-scented, so that no drop of sweet escapes their notice under conditions which would conceal it from other races of bees. They are very prolific, and rear brood late in the season. We have had frost here, yet to-day I find brood in all stages in hives of Cyprians. One other quality of great importance is noticeable: A strong wind is heeded by the Cyprians, and, upon its appreach, they gather in their hives to avoid it; or, if the day open windy, they do not venture forth. Those who have them in America will note this, and that they will not dwindle as the Italians do during the coming spring. Still another point in their favor is, that they can be shaken from the combs very much as though they were blacks; but if left to themselves do not run off, having in this particular the same disposition as the Italians, namely, they spread evenly over the combs and remain quiet when the latter are handled.

Preventive of Robbing.—Mr. Val. D. Urich gives the following as his method of stopping robbing:

I will give you my way of curing robbers, which always proves satisfactory to me whenever I try it. When the robbing commences, and the colony to be robbed does not fight the robbers away, I close up the entrance pretty small; then I take a small piece of broom corn (which I like best) or quite a little whip, and stick it in at the entrance, and shake it pretty often. That makes them so cross that they will mount a robber before he is halfway down to get in; but put on a veil, or they will will take you for a robber. If they have full sway of a colony before I find it out, I close it up entirely till next morning, when I make them defenders before the robbers are up. Sometimes it must be done pretty often before they stop it.

Paper Honey Comb.—F. Della Torre makes the following suggestions:

Will you induce Mr. Gray to make a machine that will turn out artificial honey comb complete—made from shellac tissue paper, and in a way similar to that described in Quinby's "New Bee-Keeping," which uses tin? I am sure it would be a success, for I have used a small square of hornet's-nest comb, inserted in ordinary brood comb with success. After "uncapping" it to ½ in. depth of cell, I just dipped the rough edges in melted wax, to make the bees think they were composed of that material all the way to the bottom. The shellac would serve to hold the strips together in this case, as the solder does in the other. These little bottomless cells could then be stuck to a flat sheet of shellac paper (one set on either side), then by touching the edges to melted wax your comb is finished.

Dysentery.—The following is given as a remedy for dysentery:

My bees had the dysentery the worst I ever saw. I went into winter-quarters with 13 colonies, and before January I had lost 6, and 7 had died on account of the cold weather and dysentery, so I had to practice something to keep up my 6 colonies. I put them in the cellar, took out their stores, and gave them a frame of candy, and the same time I fed them syrup in which I put a few drops of mint. Both were made of granulated sugar. I also gave them all the ventilation I could to get out the foul air. In about a week they were all well, and their excrements are now dry, and the bees are all well up to date.

BEE-KEEPERS' MAGAZINE.

Apis Dorsata and Apis Zonata.—We make the following extract from a letter from Mrs. Frank Benton, dated at Larnaca, Cyprus, Dec. 10, 1880:

You doubtless know of the many hindrances my husband has had to contend with during his stay upon this Island, also of his different attacks of sickness—ophthalmia and tropical fever. Now that cooler weather has come his former vigor is gradually returning, and no doubt he will soon write you again.

Just at present he is very busy making preparations for a journey to India and the East India Islands, his object is to procure the long talked of bees, *Apis Dorsata* and *Apis Zonata*; also any other races of excellence which he may find there. He will also look up some other points, such as gathering seeds of important honey plants, and of different grains that may be profitably cultivated in our native land. He will take with him thirty or thirty-five colonies of Cyprian and Syrian bees, most of which will be taken to Java.

Should success attend him, which we sincerely hope will be the case, the new bees will be sent directly to America.

His proposed route from here to Batavia, Island of Java, is as follows: Beyrout, Jaffa, (Syria); Port Said, (Egypt); through the Suez Canal and Suez; then down the Red Sea to Aden, (Arabia); across the Arabian sea to Bombay, in Hindoostan; thence to Colombo, Island of Ceylon; then to Singapore, Farther India; probably, also, to Timor, to the Celebes and the Phillipine Islands.

He will leave here the 21st of December, and hopes to return to Cyprus early in the spring, in order to continue rearing and shipping Cyprian queens.

California Prospects.—A writer at North Temescal, gives the following encouraging report:

At this time (Dec, 20) the prospects for an abundant honey crop were never better. Frosts were a month earlier than usual—rain six weeks behind time, now the earth is saturated with water, grass is growing with a will and it is almost fit for grazing. From present indications we are going to have a mild winter, with plenty of rain withal. If this should happen to be the case, and March north winds do not visit the fertile plains and valleys of this coast, and should the atmosphere be charged with that degree of humidity which is so conducive to the secretion of nectar, then the honey yield of this State will be enormous.

Dr. J. P H. Brown makes the following encouraging prophecy: "Without consulting Vennor, or any other of the prophets, I prophesy that the year 1881 will most abundantly reward the industrious bee-keeper."

CONVENTION NOTES

Michigan State Convention.

Met in Pioneer Hall, State Capitol, Lansing, pursuant to call, Dec. 8, at 11 a.m.

So little time remaining before noon —Prof. Cook moved that the meeting spend the morning hour in conference, and said L. B. Baker's bees were in the open air without chaff or other protection, and the Professor would ask what the different members would do with them, seeing that they had now been out so long in the cold?

C. B. Link stated that dampness was the principal cause of loss.

L. B. Baker said he intended to take them in but thought best to let them alone till warm weather, as they seemed to be all right so far.

The Secretary was asked what he would do with them, and said that if he had a good cellar as Dr. Baker's, he would take them in carefully and slant the hives so the water would run out; then partially open the top so the hives would dry out.

Acting Pres. Ashley, of Ypsilanti, stated that if the season was as last he would leave them out; but as it now seems, he would favor the opinion of Mr. Bingham, and take them in.

B. A. Salisbury, of Battle Creek, favored wintering in boxes filled with chaff 3 inches deep all around, and preferred it to cellar wintering.

Mr. Cole, of Livingston, thought it a bad time to move bees; he moved some into the cellar once when so caught, and lost heavily; he said 90 per cent. of the bees designed to be protected were now in the open air unprotected having been caught by the early winter.

Mr. Smith asked why bees did not winter as well in frame as box hives, without protection.

Prof. Cook said Mr. Hurlburt lost his regardless of the old box hives he used; he did not think the hive was the cause. Neither was he fully satisfied that chaff hives would entirely obviate the dangers of out-door wintering. We need another 1873 winter to test them. Our few past winters have been such that we could not safely predict what a severe winter would do. If Dr. Baker should move his bees into his cellar and then warm it slowly there would be but little danger.

Prof. Cook suggested that hereafter our meetings be held the first Thursday after the first Tuesday in December, and that time was unanimously chosen; and Battle Creek the next place of meeting.

1 P.M.—Vice Pres. Ashley, of Ypsilanti, called the meeting to order.

Prof. Cook said that black bees were more prompt in entering surplus boxes, but did not regard that of importance, as by the present means we had no difficulty in getting Italian bees to start combs in the lower part of the hive after which they could be raised, and the Italians would go on with the work without loss of time. Black bees are said to dwindle less in spring, if so, it was an advantage. Italian bees fly early, and do not run on the combs. The Students at the College say the Italians fly earlier and later than the blacks. Italians are said to be cross, but I know pure Italians are more gentle and better natured. I have Holy or Palestine bees, and they are the only bees I have ever seen that would duplicate themselves. They also breed later, and I did not have any queens that laid so fast. I favor dark Italian bees while others prefer the light. The Cyprian bees must be better. They are left to themselves in Cyprus, and only the fittest have survived. Adam Grimm believed the darker bees to be the best—while the Cincinnati Convention allowed it to go out that the light ones were best.

Louis Harper, of Delhi, said he had light-yellow Italians and believed them best, but had never had dark Italians, nor did he want them; he liked the light-haired bees; they could be held up to view and were beautiful. But he wanted honey-gatherers, and favored the lighter Italians.

Prof. Cook said he believed we should get the best bees from importations. I am perfectly willing to go on record in that matter. Nature does her work better than bee-keepers. The best I have ever seen are those that have been imported. If I had been at Cincinnati I should have protested against the opinion going out that the American-bred Italians were best.

Mr. Robinson, of Pewamo. I have a few nice bees—but they have cost me $5 to get them off—that is, changing from light to dark, and I am glad to get rid of them. I now have only dark; a man could not give me yellow Italians.

W. R. Cole, of Belleview. In August I found my Italians on red thistles and doing well, while my blacks worked on clover, and accomplished very little.

Mr. Harper stated that some advocated black bees, but he believed that none were to be found pure. All that we now have are dark-mixed Italians, and the yellow are best. If I had to keep black bees, I should not keep any.

L. B. Baker. We have had black bees, and if they were best we have had something to be proud of.

Mr. Smith said the largest comb honey yield he had ever had were from black bees. I have an imported queen and have bred from her 18 others; she was very dark. They have certainly stored no more honey than my light bees. I have an apiary away from home of pure black bees, and they have produced more honey this year than my others. But I always show my light bees to strangers. He said his stinging bees are his best workers, and he liked them.

Mr. Bingham, of Otsego, stated that he cultivated dark Italians—but had both yellow and dark, and pure blacks. In the fall always reduced the number of his colonies—sometimes more than half, but never killed a queen whose colony had done well because she was black, or yellow, or dark—"Pretty is that pretty does."

Mrs. L. B. Baker, of Lansing, who has kept a strict account, says the dark Italians have proved much the best honey gatherers with her. A resolution was passed that it was the sense of the Convention that dark Italians were preferable.

Prof. Cook moved that all the essays from abroad be received and the writers thanked for their kindness in sending them. The resolution was unanimously passed.

Mr. Robinson was called for, and said surplus was what he kept bees for; used the extractor mainly; did not extract from the brood chamber, and never extracted till the honey was ripe and mainly sealed; uses a Bingham & Hetherington knife and like it best; can do work faster and better with it than any other; sell most of my honey in Pewamo; carry 20 to 25 queens through the winter for spring use; can winter them safely on one comb.

Prof. Cook thought the wintering of extra queens a matter of great importance; he had never failed in wintering bees in small hives. They cannot be wintered in chaff hives, but can in the cellar.

Mr. Salisbury wintered a small colony on candy and flour and water, and it was the best colony he had the next season.

Mr. Robinson said getting honey was not all; it had to be kept and the market waited for; had no trouble in selling all he could get.

Prof. Cook said uncapping took time; as soon as it was partially capped and thick it could be extracted. Never had any spoil.

Mr. Cole never let his bees cap more than a place as large as his hand before extracting; never had any sour.

Mr. Robinson had several barrels spoil, and care was required unless thoroughly ripe.

Mr. Bingham said he believed it unsafe to extract before it was esentially sealed. Believed the honey better and richer for remaining some time sealed up in the hive.

Mr. Perry had noticed that black bees left air under the caps, while Italians did not. He believed this fact was the reason why black bees make whiter combs.

Prof. Cook said, take off your sections as quick as done. All the nice section honey is made quick and removed at once.

Mr. Robinson said honey would not granulate if kept up to 90° but would if below 60°.

Mr. Bingham asked how much more extracted honey a colony would yield than section.

Mr. Robinson said he extracted 200 lbs. per colony; but should not expect more than 50 lbs. from the same colony, if in sections.

Mr. Hilbert said 30 colonies gave 3,000 lbs. in sections.

Dr. H. B. Baker, Sec. State Board of Health; Dr. J. H. Kelley, of same Board, and Mr. L. B. Baker, were appointed a committee to urge legislation calculated to prevent the adulteration of honey and other sweets.

Mr. Benham, of Olivet, stated that he had had some experience in comb foundation. He wanted to furnish and had furnished good material. Had handsome foundation well drawn out that the queens refused to fill with eggs, and was fearful the wax was impure. After making from his own wax, with his own machine, had no trouble. Thought a machine would pay. Foundation was invaluable.

Mr. Perry said he would not do without it. Bees accepted the Dunham foundation most promptly.

Mr. Robinson preferred Dunham foundation and thought it would soon go out of use; he was willing to go on record, that it raised too many bees.

Mr. Smith liked it, said it made 4 to 6 days saving in filling a hive with combs.

Mr. Waldo said full frames sagged somewhat, when filled with it. I think it beautiful, and favor its use.

T. F. Bingham had filled his shallow frames and hived full colonies on Dunham foundation with the mercury at 96° without any sagging; but had always taken the precaution to place an empty hive under the one containing the foundation, that the bees might have room to distribute themselves so as not to be compelled to cluster on the foundation while it was being drawn out. Then after a few days removing the empty set. Believed this plan would usually prevent sagging even in Langstroth frames.

Mr. Smith had used wired-foundation and it had worked nicely; saw no objections to the wire; said the flat-bottomed was the thinest he had ever seen.

Mr. Waldo stated that in all the apiaries he had visited where foundation was used, he had found more or less sagging.

L. B. Baker said he had used foundation and had never had any sag, but had never put large swarms on it.

Prof. Cook said he believed foundation a success.

Mr. Perry said some used would settle, while some would not.

[A letter was here read from Mr. O. J. Hetherington, which will be found elsewhere in our columns —Ed.]

Pres. Ashley and Mr. Robinson were of the opinion that there was a loss of from 6 to 15 per cent. of wax in the process of making wax into foundation.

Mr. Perry thought the loss in working pure yellow wax was merely nominal.

Considerable discussion was brought forward as to the means to be adopted so as to unite all the bee-keepers.

The President said those who attend must condense and arrange so as to tell just what they wished in a few words.

Mr. Robinson said he did not want to tell all he knew. There were more bee-keepers now than he wanted. More honey raised would not increase the demand or raise the price.

Mr. Perry said the business would regulate itself.

Prof. Cook did not like the Chinese plan. Parties who formerly talked it, saying we had too many bee-keepers, were now taking another course.

Mr. Robinson said alsike clover had been a favorite with farmers about him, It made good hay, seeded well, produced about 5 bushels of seed to the acre; if sown with wheat in the fall, it would bloom and yield seed the following season It will bloom the same season, if sowed early, and seed the first crop. He said, if this Convention could bring the adulteration and foul-brood matters fairly before the people, it would prove itself one of the most profitable of Conventions. T. F. BINGHAM, *Sec.*

[The essays and correspondence read at this Convention have been published in the BEE JOURNAL.—ED.]

Cortland Union, N. Y., Convention.

The annual meeting of the Cortland Union, Bee-Keepers' Association was held at Cortland, N. Y., Jan. 4, 1881, and well attended.

The discussion of the day was begun by E. H. Knapp upon "Rearing Italian queens." He related the methods pursued by himself and brother. During the last season they had raised upwards of 100 queens, and principally by the practice of "grafting." It consisted essentially in removing the eggs or larvæ from queen-cells in the earlier stages—the larger cells having previously been all removed—and replacing larvæ 6 to 12 hours old, taking from worker cells of the colony to be bred from. The bees took care of them in the same manner that they would if undisturbed. The best queens were produced by taking larvæ soon after hatching; thought it the most satisfactory and certain of any method he knew.

The discussion was continued by Pres. Pierce, Messrs. M. C. Bean, E. Cory, J. H. Kennedy and others. The relative merits of this method as compared with others, the length of time after the operation before the cells might be removed, probabilities of their being torn down, the age of larvæ it was best to take, the effect of increasing the amount of royal jelly in the cell, and other points, were dwelt upon.

The discussion of the afternoon session was begun upon the subject of foundation in hives and surplus boxes, by W. L. Coggshall. He had used several kinds; had tried that with high side-walls and with none; preferred the former; had used the Dunham and the Olm; had used the flat-bottom with good success in sections; he endorsed fully the article by C. C. Coffinberry, at the Cincinnati Convention; would not advise any bee-keeper to compel bees to make combs when foundation was at present prices. The discussion became interesting and lively upon the subject, and took up the rearing of brood over the wires in wired-foundation in full frames, and hiving bees upon foundation. It was participated in by Pres. Pierce, Messrs. E. Cory, R. H. Mellen, F. W. Smith, J. H. Kennedy, E. H. Knapp, M. H. Fairbanks and M. C. Bean.

"Wintering bees" was now introduced by A. G. Chapman. There were as many methods as bee-keepers; he said the beginner would find the opinions and methods of leading men at variance on the subject; but he thought there might be some factors common to all, obscure though they might appear in some. Dryness he concluded as one. His method he described to be as follows: He kept 2 colonies in one hive; this was set permanently on a good foundation. It had a lid like a trunk, with hinges on one side; inside, and leaving space for packing, was a box made cheaply of half-inch lumber that would hold 20 Langstroth frames and in the center he placed a thin division board to separate the 2 colonies. They were kept comfortable, and he liked the method. The subject was kept up by Messrs. Smith, Knapp, F. Schermerhorn, Mellen and Pres. Pierce.

The Association listened to the Annual Address of the President, Chas. A. Pierce. He spoke of the encouragement the Association was to all, and the progress it had made in the past year of its organization; it now numbering nearly 50 members.

The Convention proceeded to the election of officers for the ensuing year with the following result:

President—Chas. A. Pierce, of Truxton.

Vice Presidents—J. L. Gillett, of Cortland; E. H. Knapp, of Fabius; W. L. Coggshall, of West Groton.

Honorary Vice Presidents—G. M. Doolittle, of Borodino; I. L. Scofield, of Chenango Bridge; H. D. Mason, of Fabius; Oscar Courtney, of Marathon; R. H. Mellen, of McLean.

Secretary—C. M. Bean, of McGrawville.

Treasurer—J. W. Cudworth, of McGrawville.

The Chair appointed Messrs. Kennedy and Lansing to act with himself as the Executive Committee.

The questions selected for discussion at the next meeting were: "What are the honey-producing plants that may be raised to advantage?" "Best method for strengthening weak colonies after spring dwindling?" "Which is most profitable, box or extracted honey?"

The Association adjourned to meet on Tuesday, May 10, 1881, at 10 a.m., in same rooms. Chas. A. Pierce, *Pres.*
C. M. Bean, *Sec'y.*

◆

Read before the California Convention.

Strong Colonies a Necessity.

S. D. BARBER.

The rapid progress made in apiculture in the last few years is remarkable. The increase in colonies and the production of honey has been marvelous to say the least of it, when we take into consideration the great loss of bees that California sustained in the years 1877 and 1879; yet apiculture is steadily moving on. The flora treasures of Southern California seem to be adequate to the great demands made upon them, and many have come to the conclusion that there is a science in bee-keeping that will pay the apiarist; but he will find that his success to a great extent very much depends upon his knowledge of that insect, the honey bee, and the natural laws by which they are governed....

The whole profit of apiculture consists in keeping the colonies strong. When honey is abundant, a large apiary will fill up rapidly in the same place where a few weak colonies will barely make a living. If desirous of making bees prosperous and profitable, protect them from wind and wet, extremes of heat and cold, destroy their enemies, and leave them to enjoy a sufficiency of food, accumulated by their own industry, and if any are in want, a timely assistance should be rendered them, and doubt not you will prosper as a bee-keeper. Our knowledge of bee instinct is such at the present time that no important point is longer a subject of controversy; and in the light thrown around the subject, no branch of moral economy can be more definitely regulated, or conducted with such absolute success. The laws which govern these industrious little insects are peculiar to themselves, differing from those which govern everything else; yet they are simple, and easily learned by any close observer. But when a deviation is made from those laws, loss, sure and certain, must follow. To be successful, then, in the practical art, the science on which it is founded must be thoroughly understood. It is easy for any person to tell when their bees are prosperous, and it is just as easy to tell when something is wrong; but it is not so easy to tell what that something is. It is no longer a matter of doubt that the natural swarming of bees can be controlled, and get such increase by artificial means, secured as may be desired, and at the same time a crop of honey obtained according to the season. The early swarms are most profitable. but never be in too much haste to divide your bees. Your rule in artificial swarming should be, never cripple the strength of the colony where the queen is to remain, as she diminishes her laying according as the number of bees are dininished. I prefer to take brood and bees at different times from my hives as they can spare them, and have young and fertile queens to form my new colonies. Many valuable colonies are ruined by being transferred from one hive to another in a wrong time, or by being divided without regard to the principles which should govern the matter to make it successfnl.

◆

☞ The Nebraska Bee-Keepers' Association will hold their Annual Convention, on the 10th and 11th of February, 1881, at Plattsmouth, Cass Co., Neb. Western Iowa bee-keepers are cordially invited to attend.

Hiram Craio, *Pres,*

Special Notices.

☞ The Volume of the Bee Journal for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

☞ Notices and advertisements intended for the Weekly Bee Journal must reach this office by Friday of the week previous.

☞ When changing a postoffice address, mention the *old* address as well as the new one.

☞ Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

☞ Sample copies of the Weekly Bee Journal will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

☞ It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Postoffice, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

☞ The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

☞ At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

☞ We will send sample copies to any who feel disposed to make up clubs for 1881. There are persons keeping bees in every neighborhood who would be benefitted by reading the Journal, and by using a little of the personal influence possessed by almost every one, a club can be gotten up in every neighborhood in America. Farmers have had large crops, high prices, and a good demand for all the products of the farm, therefore can well afford to add the Bee Journal to their list of papers for 1881.

☞ We have filled orders for quite a number of Binders for the Weekly Bee Journal. We put the price low, 30 per cent. less than any one else could afford to sell them, for we get them by the quantity at wholesale and sell them at just enough to cover the cost and postage, the latter being 21 to 23 cents, on each. We do this to induce as many as possible to get them, and preserve their Weekly numbers. They are exceedingly convenient; the Journal being always bound and handy for reference. The directions for binding are sent with each one.

☞ The Marshall County, Iowa. Bee-Keepers' Association will meet at the Court House in Marshalltown, Iowa, on Saturday, Feb. 5, 1881, at 1 p.m. Subject for discussion: "Winter care of bees." J. W. Sanders, *Sec.*

☞ A Bee-Keepers' meeting will be held at Walnut Hill, Barren Co., Ky. on Saturday, Feb. 12, 1881. All are invited. H. C. Davis, *Sec.*

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		..$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00..	2 75
Bee-Keepers' Magazine (A.J.King)..	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis).	2 75..	2 50
The 4 above-named papers.........	4 75..	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50..	2 35
Bee-Keepers' Guide (A.G.Hill).......	2 50..	2 35
The 6 above-named papers.........	5 75..	5 00
Prof. Cook's Manual (bound in cloth)	3 25..	3 00
Bee-Culture (T.G.Newman)...........	2 40..	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

◆

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 18@20c. for strictly choice white comb in 1 and 2 lb. boxes; at 14@16c. for fair to good in large packages, and at 10@12c. for common dark-colored and broken lots.—*Chicago Times.*

BEESWAX.—Choice yellow, 20@24c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 18@20c.; fair do., 15@16c.; dark do., 11@13; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 80@85c.

BEESWAX.—Prime quality, 20@24c.

H. K. & F. B. THURBER & Co.

CINCINNATI.

HONEY.—The market for extracted clover honey is very good, and in demand at 10c. for the best, and 7@8c. for basswood and dark honey. The supply of comb honey is good, with a fair demand. We pay 16c. for the best.

BEESWAX—18@24c. C. F. Muth.

SAN FRANCISCO.

HONEY—Our market is inactive for honey—no demand only for local trade. We quote comb 12@14c. Extracted, choice white, 7@7½c.; off-colors and candied, 5@6½c.

BEESWAX—22@24c., as to color.

Stearns & Smith, 423 Front Street.
January 22, 1881.

◆

Local Convention Directory.

1881. *Time and Place of Meeting.*

March 12—Mills Co., Iowa, at Glenwood, Iowa.
April 2—S. W. Iowa, at Corning, Iowa.
5—Central Kentucky, at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 18—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

◆

Ladies who Appreciate Elegance and purity are using Parker's Hair Balsam. It is the best article sold for restoring gray hair to its original color and beauty.

☞ Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

◆

☞ Any one desiring to get a copy of the Constitution and By-Laws of the National Society, can do so by sending a stamp to this office to pay postage. If they desire to become members, a fee of $1.00 should accompany it, and the name will be duly recorded. This notice is given at the request of the Executive Committee.

◆

A Great Paper.—We desire to call the attention of our readers to one of the greatest newspapers of the age—one that secures the best writers in this country and Europe, regardless of expense; has the best and fullest book reviews of any paper in the country; has able articles upon financial subjects; has departments devoted to Fine Arts, Biblical Research (something that cannot be found in any other newspaper in the United States), Farm and Garden, Insurance, Weekly Market Reports, Cattle Market, Prices Current, Dry Goods Quotations, etc.—in fact, a newspaper fully suited to the requirements of every family, containing a fund of information which cannot be had in any other shape, and having a wide circulation all over the country and in Europe. We refer to The Independent, of New York. "The largest, the ablest, the best." See advertisement, in another column, and send for specimen copy.

Books for Bee-Keepers.

Cook's Manual of the Apiary.—Entirely re-written, greatly enlarged and elegantly illustrated, and is fully up with the times on every conceivable subject that interests the apiarist. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, **$1.25**; paper covers, **$1.00**, postpaid. Per dozen, by express, cloth, $12.; paper, $9.50.

Quinby's New Bee-Keeping, by L. C. Root.—The author has treated the subject of bee-keeping in a manner that cannot fail to interest all. Its style is plain and forcible, making all its readers sensible of the fact that the author is really the master of the subject. Price, **$1.50.**

Novice's A B C of Bee-Culture, by A. I. Root. This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, **$1.25**; paper, **$1.00.**

King's Bee-Keepers' Text-Book, by A. J. King.—This edition is revised and brought down to the present time. Cloth, **$1.00**; paper, **75c.**

Langstroth on the Hive and Honey Bee. This is a standard scientific work. Price, **$2.00.**

Blessed Bees, by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, **$1.00.**

Bee-Culture; or Successful Management of the Apiary, by Thomas G. Newman.—This pamphlet embraces the following subjects: The Location of the Apiary—Honey Plants—Queen Rearing—Feeding—Swarming—Dividing—Transferring—Italianizing—Introducing Queens—Extracting—Quieting and Handling Bees—The Newest Method of Preparing Honey for Market, etc. It is published in **English** and **German.** Price for either edition, **40 cents**, postpaid, or $3.00 per dozen.

Food Adulteration; What we eat and should not eat. This book should be in every family, where it ought to create a sentiment against the adulteration of food products, and demand a law to protect consumers against the many health-destroying adulterations offered as food. 200 pages. Paper, **50c.**

The Dzierzon Theory;—presents the fundamental principles of bee-culture, and furnishes a condensed statement of the facts and arguments by which they are demonstrated. Price, **15 cents.**

Honey, as Food and Medicine, by Thomas G. Newman.—This is a pamphlet of 24 pages, discoursing upon the Ancient History of Bees and Honey; the nature, quality, sources, and preparation of Honey for the Market; Honey as an article of food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, &c.; and Honey as Medicine, followed by many useful Recipes. It is intended for consumers, and should be scattered by thousands all over the country, and thus assist in creating a demand for honey. Published in **English** and **German.** Price for either edition, **6c.**; per dozen, **50c.**

Wintering Bees.—This pamphlet contains all the Prize Essays on this important subject, that were read before the Centennial Bee-Keepers' Association. The Prize—$25 in gold—was awarded to Prof. Cook's Essay, which is given in full. Price, **10c.**

Bees and their Management. This pamphlet was issued by the Italian Bee Company, and has had a large circulation. The price has been reduced from 20 cents to **10 cents.**

The Hive I Use—Being a description of the hive used by G. M. Doolittle. Price, **5c.**

Kendall's Horse Book—No book can be more useful to horse owners. It has 35 engravings, illustrating positions of sick hoses, and treats all diseases in a plain and comprehensive manner. It has a large number of good recipes, a table of doses, and much other valuable horse information. Paper, **25c.**

Chicken Cholera, by A. J. Hill.—A treatise on its cause, symptoms and cure. Price, **25c.**

Moore's Universal Assistant contains information on every conceivable subject, as well as receipts for almost everything that could be desired. We doubt if any one could be induced to do without it, after having spent a few hours in looking it through. It contains 480 pages, and 500 engravings. Cloth, **$2.50.**

Ropp's Easy Calculator.—These are handy tables for all kinds of merchandise and interest. It is really a lightning calculator, nicely bound, with slate and pocket for papers. In cloth, **$1.00**; Morocco, **$1.50.** Cheap edition, without slate, **50c.**

☞ Sent by mail on receipt of price, by

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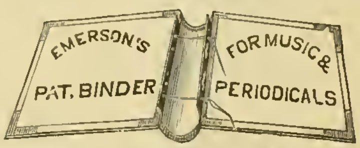
Binders for the Bee Journal



We can furnish Emerson's Binders, gilt lettered on the back, for the American Bee Journal for 1880, at the following prices, postage paid:

Cloth and paper, each	50c.
Leather and cloth	75c.

☞ **Binders for the Weekly Bee Journal postpaid, 85 cents.**

☞ We can also furnish the Binder for any Paper or Magazine desired.

THOMAS G. NEWMAN,
974 West Madison Street, **Chicago, Ill.**

THE BRITISH BEE JOURNAL,

AND BEE-KEEPER'S ADVISER.

The *British Bee Journal* is published monthly at $1.75, and contains the best practical information for the time being, showing what to do, and when and how to do do it. **C. N. ABBOTT**, Bee Master,
School of Apiculture, Fairlawn, Southall, London.

HONEY WANTED.—I desire to purchase several barrels of dark extracted honey, and a few of light; also, Comb Honey. Those having any for sale are invited to correspond, giving particulars.

ALFRED H. NEWMAN,
972 West Madison street, CHICAGO, ILL.

THE AMERICAN BEE JOURNAL

OLDEST BEE PAPER IN AMERICA — ESTABLISHED IN 1861

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A line will contain about **eight words**; fourteen lines will occupy one inch of space.

One to three weeks, each insertion,	20	cts. per line.
Four " or more" "	18	" "
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THOMAS G. NEWMAN,
974 West Madison Street., Chicago, Ill.

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SPECIAL NOTICES.

PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

☞ "What is the meaning of 'Dec. 81' after my name on the direction-label of my paper?" This question has been asked by several, and to save answering each one, let us here say: It means that you have paid for the full year, or until "Dec. 31, 1881." "June 81" means that the first half of the year is paid for, up to "July 1st." Any other month, the same.

☞ Owing to my increased business I shall not be able to attend to the bee supply business this year, and while thanking all my old customers for past favors, I would recommend them to buy their bee-keepers' supplies from Mr. A. H. Newman, of Chicago, as I know the orders will be despatched on the shortest notice. W. G. WALTON.
Hamilton, Ontario, Jan. 24. 1881.

Given's Foundation Press.

The latest improvement in Foundation. Our thin and common Foundation is not surpassed. The only invention to make Foundation in the wired frame. All Presses warranted to give satisfaction. Send for Catalogue and Samples.
1wly **D. S. GIVEN**, Hoopeston, Ill.

SEEDS FOR HONEY PLANTS—all kinds, as well as **Apiarian Supplies in general.** Send for my Catalogue. **A. H. NEWMAN,**
5wtf 972 W. Madison Street, Chicago.

SECTIONS AND HIVES.

We have concluded to extend the time another month. We will make the "Boss" Sections, during the month of February, any size desired up to 5x6 for $5.00. Material for Langstroth hive, 50c.

JAMES FORNCROOK & CO.
Watertown, Jeff. Co., Wis., Feb. 1, 1880.

Take Notice.—There is a patent pending on the "Boss" Section. 5wtf

ITALIAN QUEENS, Full Colonies, Nuclei and Bee Hives specialties. Our **new** Illustrated Catalogue of Bees, Supplies, Fine Poultry, Small Fruits, &c., **Free.** ☞ Send for it and save money.
J. T. SCOTT & BRO., Crawfish Springs, Ga. 2w32tx

65 *ENGRAVINGS.*

The Horse

BY B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.

Price 25 cents.—Sent on receipt of price, by

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THE INDEPENDENT.

:o:

"*The foremost religious newspaper of the United States.*"—JOSEPH COOK.

:o:

THE INDEPENDENT seeks the patronage of the public on three grounds, as follows:

1st. It is the largest weekly religious newspaper published in the world.

5d. It employs as contributors more able writers, at home and abroad, than any other weekly newspaper.

3d. It gives its readers a wider range of topics and more and fuller departments than they can find elsewhere in any journal.

THE INDEPENDENT consists of 32 pages, neatly cut and pasted. It is printed from clear type (we stereotype the pages weekly, and, hence, every issue is really printed with new type) and on good paper, and mechanically it is unexcelled.

There is no Question of prominence in religion, politics, science, education, finance, or any other department of human knowledge which THE INDEPENDENT does not discuss. It has regular departments devoted to Biblical Research, Missions, Religious Intelligence, Book Reviews and Literary News, the Sunday school, Education, Science, Sanitary questions, Fine Arts, the movements of ministers. Personalities, News of the week. Financial and Commercial matters, including Weekly Prices Current, Market Reports, Cattle Market, Dry Goods Quotations, Flowers and Farming, and Insurance. In its religious department it gives news and stacistics of all denominasions of Christians, everywhere. In fullness, accuracy, and comprehensiveness this department is unequaled. Several pages of stories and poems adapted to Old and Young are given every week, with a column of Puzzles.

From time to time Sermons by eminent ministers are published. The currant topics of the day are discussed in our editorial columns freely and vigorously. We are not afraid to state our opinions.

Our New Terms for 1881.

One subscription one year, in advance	$3 00
For 6 months, $1 50; for 3 months	75
One subscription two years, in advance	5 00
One subscription with one NEW subscriber, both in advance, in one remittance	5 00
One subscription with two NEW subscribers, all three in advance, in one remittance	7 00
One subscription with three NEW subscribers, all four in advance, one remittance.	8 50
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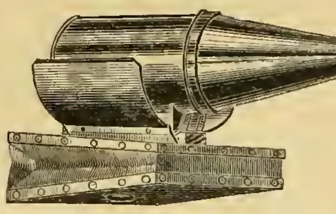

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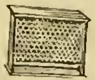

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VOL. XVII. CHICAGO, ILL., FEBRUARY 16, 1881. No. 7.

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CORRESPONDENCE.

For the American Bee Journal.

A General Law is Needed.

G. W. DEMAREE.

I regard the remarks of the editor of the AMERICAN BEE JOURNAL, relative to the common practice of adulterating the food and drink of the people, to be "timely" in every sense of the word. It is highly gratifying to know that we have a man at the head of our favorite bee paper who cannot be bribed by the hope of gain, nor driven by the horde of adulterators, their aiders and abettors, from the path of duty. This is no trifling matter to deal with. The adulterators have grown rich, and become securely intrenched while the people have slept. They can control legislatures, and make Congress itself gentle as fawns at their feet. This may be a humiliating confession, but it is nevertheless true.

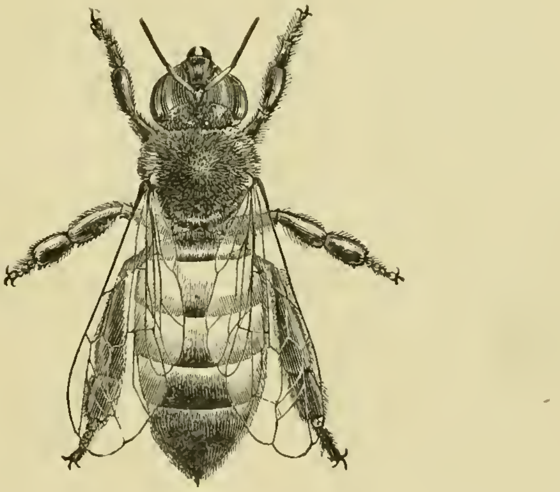
The people, after their long nap, begin to rise and "shake themselves," but, like the strong man of old, their locks have been shorn and their strength is gone. I doubt very much whether any law can be framed and enacted that will prove equal to the task of driving these scoundrels from their nefarious practice of tampering with everything that is capable of being adulterated.

The editor has referred to the statutory law of Kentucky, framed especially in the interest of the bee-keepers of the State. We have such a law in Kentucky, and to most people it would seem to be everything that could be asked. It speaks out plainly in unmistakable words, and attaches a severe penalty; but it is nevertheless a dead-letter—dead as an Egyptian mummy. There is perhaps ten gallons of that vile emanation of satan—glucose—labeled and sold as "pure strained honey," to one gallon of the pure article, Not in Louisville alone is this imposition carried on, but I have seen it in the interior of the State—right in sight of my apiary, and in competition with its products.

It will doubtless be asked why the law is not executed? Simply because the law contains no provision by which it can be executed. The Commonwealth of Kentucky, in order to make good a charge of violation of her laws, must prove the charge against the accused, and he must be tried before a jury of his countrymen, and not one juryman in a hundred (however intelligent he might be in other matters) would know glucose from "Adam's off ox." Hence the proof must be furnished by "expert testimony," and where are you to get an "expert" every time he is needed, unless provided by law? It appears to me that right here will be found the great problem to be solved. Any law that does not protect the *interests of the whole people* against the counterfeiters, and does not embrace a rigid system of inspection by which the law can be executed in the simplest manner, will, in my opinion, amount to but little in the end. But the thing is possible, and should be tried and tried again, till such a law is made available. At any rate, all these adulterators should be classed with thieves and robbers in all the statute books in the United States. In the meantime, however, the people must be educated to know the true from the false, and when this is done much will be done to drive the false "stuff" out of the market, and thus break down the counterfeiters. But it should be borne in mind that the saying of "one of old," who knew whereof he affirmed, that "a man's foes shall be they of his own house," is true in more than one respect. Some of the bee papers have held up the hands of the adulterators by advertising for them and selling their abominations, and even educating the people how to mix table syrups with glu—"grape sugar." The people ought to be educated to give such papers (in the language of the Rev. Mr. Clarke) a good "letting alone."

Dr. Brown's article in the JOURNAL of the 19th January is a complete refutation of the assertions of some who have interestedly published to the world that "honey is composed of grape sugar," etc. I thank the Doctor for those timely words; and also thank Mr. Scudder, for bravely speaking out as he does in the same issue.

Christiansburg, Ky.



Italian Worker Bee—magnified.

For the American Bee Journal.

Improvement in Bees.

L. R. JACKSON.

I am glad to see the subject of improvement in bees discussed and hope it will receive still more attention. I was not long a bee-keeper till I discovered that some of my bees were far more valuable than others, and determined to try and improve my stock. At that time I had but one imported queen, she being of the dark variety. I was rearing all of my queens from her, and from what I had read believed we should breed from no other. I bought another imported one to cross the blood. She was of the light variety, and her bees better honey gatherers than the dark. The next year I reared all my queens from the light colored, and was delighted with their beauty, but found that the workers from these young queens were not as good as those from the dark, and I now determined to try a few queens from my home-bred and selected the one that had given the best results the previous year, which was of the dark race, and run them in this way to the third generation, always selecting the best. The results have been very satisfactory to me. The best queen I now have is of the third generation, and of the dark variety, with every appearance of a cross from the light, as the bees are of a much lighter color than the others. This colony gave me 28 lbs. more comb honey than any other—the average being 23 lbs., and I find it runs clear back to the imported, all the time gaining.

Prof. Cook thinks as soon as we cease importing queens, we will find our apiaries deteriorating. I will admit, if we keep up the dollar-queen business this will be so. He gives as a reason for this, the severe pruning of nature, on account of the limited pasturage. We must, of course attend to this pruning, even with a more rigid hand than nature. He says color and beauty are of no account with them; neither should it be with us. He says if Mr. Benton had not fed he would have lost all his bees. Here is a great trouble with the imported queens, they now come on the list with our dollar-queens; they are kept and used for the money there is in selling queens, not for their honey-gathering qualities. I will say here, that I do not believe it will pay any one to make this severe pruning for the purpose of rearing queens at one dollar each, and I would not advise any one to buy one of these cheap queens, though I do not doubt that there are many good queens sold for one dollar, yet there are so very many that are entirely worthless as honey-gatherers. I would rather pay some reliable person $5 for a queen that I knew had been reared only for her honey-gathering and amibility, than to risk one of these cheap queens as a gift.

Another reason I would give for home-bred queens is that they have become acclimated to our country, which I believe to be very essential. When I take into consideration that there is not one of my neighbor bee-keepers that obtained over 12 lbs. of honey from their best colonies, while I obtained 63 from 1 colony, and averaged 23, I cannot help thinking that I have been well paid for all my pruning.

The past season had been a very poor one for honey in this section of the country. Many of the bees did not gather enough honey to winter on, and fully one-third are already dead. I do not believe one-half will survive the winter. One man had 15 colonies, and they are all dead. Many are becoming discouraged in the business, and will make no effort next year, although I look for a good season and have made arrangements for it, and if I am disappointed, I know I will be paid for my trouble in the pleasure I find in keeping and working with them. My bees are in good condition, and are wintering well so far. I packed them in chaff on their summer stands, in October, and was ready for winter when it came.

Fairland, Ind., Jan. 13, 1881.

For the American Bee Journal.

Riding the Billows.

W. J. DAVIS.

> "When smooth old ocean and each storm asleep,
> Then ignorance may plow the watery deep;
> But when the demons of the tempest rave,
> Skill must conduct the vessel through the wave."

It is equally true that the strongest craft, manned by the most skillful mariners, cannot resist every storm that lashes the ocean. The present may well be called trying times for the bee-keepers of the United States, a poor honey season, followed by a rigorous winter. Experienced and judicious apiarists, in view of the stinted yield of honey that came with the flowers of 1880, and the presence of that abominable stuff, (the product of plant lice), could apprehend trouble ahead. Like Job's war-horse, "they snuffed the battle from afar," or like the skillful mariner began to lighten up ship, by doubling up colonies, and with the free use of brimstone, giving the stores thus elect to the colonies, hoping that a poor summer for honey would be followed by a favorable winter. But in this we have been doomed to disappointment. October brought cool weather. November cold. December colder. January coldest, and now this 1st day of February, here in North-western Pennsylvania, we are fanned by the cool breezes of Greenland, and winter is sifting her snows with a lavish hand. My own apiaries I reduced from 180 to 117 colonies, and one of that number has since gone where they'll never hum any more.

I winter in houses constructed for the purpose, on the plan described on page 185 of AMERICAN BEE JOURNAL, vol. 8, (1873); but the one there described has been replaced by a more substantial structure. The great need of our bees at present is a cleansing flight, but there seems no prospect of that in the near future, and should this stern old winter hold earth in his icy grasp for 4 or 6 weeks longer, I apprehend the severest thinning out of bees that the country has had since the introduction of movable comb hives and Italian bees. Hence my title "Riding the Billows," uncertain of the past.

In conclusion, allow me to say, that I am more than pleased with the Weekly. I did not like the idea of change of form, making it of unsuitable size for making a neat bound book, but its frequent visits give it a freshness it did not have as a monthly. "Long may it wave" and prosper.

Youngsville, Pa., Feb. 1, 1881.

For the American Bee Journal.

Pure Liquid Honey in Glass Jars, etc.

CHAS. F. MUTH.

In an age like ours, where one invention follows another, and where chemistry has found even a substitute for mother's milk and babies live on it, it is surprising that a common swindle, as practiced by New York and Chicago honey dealers, of putting a piece of comb honey in a glass jar and pouring over it *pure glucose*, could last as long as it did. I had a number of those beautiful packages analyzed, and found that it was not like Mr. Hoge states on page 37 AMERICAN BEE JOURNAL, present volume, "that so much glucose had to be used to keep it limpid," but it was found that the comb was the only honey in the jar, and that the liquid was *pure glucose* which had partaken of the flavor of the comb honey. Such is its dangerous character, that not having any flavor of its own it partakes readily of the flavor of a very small admixture. A gallon of pure maple syrup is sufficient to manufacture 10 gallons of *choice* maple syrup(?) Think of it! If I am wrong, I will stand corrected.

The public in general was, some time ago, although surprised at our large honey harvests, well disposed towards our product. "As sweet as honey," is a significant proverb. But the public has been "glucosed," and the interests of bee-keepers considerably damaged thereby. As honesty, as well as dishonesty is characteristic, it would be folly to suppose that adulterators should be our redeemers. On the contrary, it requires the united efforts of honest bee-keepers and fair dealers to make front against every adulterator, and to expose him.

I have my serious doubts as to the innocent qualities of glucose, as it is only a few weeks since when I was informed by a friend that he saw in one of his medical periodicals that grape sugar was assigned as the cause of Bright's disease of the kidneys in a patient.

A druggist in our city who, I am sorry to say, adulterates with glucose most of the honey he retails, and with whom I remonstrated in regard to the matter, excused himself as follows: "I use pure honey only when making up prescriptions; but I can sell a larger quantity of honey for a dime when adulterated." He is a good chemist, and about 3 or 4 years ago he offered me for $10 a recipe to keep pure honey from granulating, and showed me, as a proof, a bottle of liquid honey he had kept exposed to the cold all winter. "This is not adulterating," he explained, "but merely adding a little drug which imparts no flavor to the honey, but is certain to keep it from granulating." My reply was that his recipe was not worth to me a picayune, because every sensible man expects pure honey to granulate, and would be disappointed at finding it otherwise; while those not yet acquainted with the nature of pure honey will soon learn. It would open a new field for adulterators which granulated honey prevents.

The present state of our honey market shows plainly that granulated extracted honey will take the market in the very near future, and not the liquid honey, while comb honey will remain what it is—a fancy article only.

I hear of great losses of bees in our neighborhood. One lost 60 colonies, and sold me his combs, and quite a number of others have lost all they had, or nearly so. We had a pleasant afternoon last Sunday a week ago, when I made use of the time by looking over my bees, justifying myself by the verse, "When an ox or an ass has fallen into your well," etc. I examined 22 colonies, they had consumed very much of their stores, but were in splendid condition—some with hatching brood, and others with eggs and larvæ in all stages. Cold weather again ended a further examination.

Cincinnati, O., Feb. 8, 1881.

For the American Bee Journal.

Fertilizing Queens in Confinement.

W. ARMS.

I have tried the following course several times with good satisfaction, and wishing to have it thoroughly tested, submit it to the public. I use a hive similar to the Langstroth, entrance at the end, and frames hung at right angles to the entrance. Select a strong colony, put on a thin honey-board, covering all but the three back frames, which are covered with wire cloth. Fit on the upper story, which has a 3-frame nucleus confined to the back end with a division board, itself covered with a honey-board; all the front part of the hives covered with glass, lined with musqueto netting, and over this the cover to the hive. The nucleus should contain two full frames of hatching brood, with all the young bees that adhere to them, plenty of honey, a small piece of drone brood ready to hatch, some young drones, (not too many), and a queen-cell not ready to hatch under 3 or 4 days; the two last named the finest to be had. Watch the queen, and when she hatches shove the slide in the division-board and let all have a fly under the glass and return. When she is 3 days old remove the lid from 11 till 3 o'clock and let in the sun, but keep the queen shut up till fertilized.

Du Quoin. Perry Co., Ill.

For the American Bee Journal.

All Heave-oh-Heave.

W. T. STEWART.

Brother bee-keepers, the time has come when we must act in one combined effort to stop the adulteration of honey with glucose. Delay is dangerous. Glucose men are working and amassing fortunes at our expense. A firm in Chicago are now manufacturing thousands of barrels of glucosed honey. They are buying honey all over the country—even comb honey and extracting it, and mixing glucose with it at the rate of four barrels of glucose to one of honey, and shipping and selling it for pure honey, at a reduced price, and flooding the markets with it, and boasting of it, and say that it takes a good judge of honey to detect it. I get my information from one of the employees of said firm, and can prove it on them, too.

Now, I propose that we stop talking about what ought to be done, and go to work to stop it at once. My plan is this, let Dr. N. P. Allen, the president of the National Association of Bee-Keepers draw up a petition to be presented to Congress, with the resolutions so framed together and guarded at every point against the adulteration or sale of adulterated honey, that it will be impossible to dodge the penalty, and make the penalty so severe that swindlers will fear it; then let Dr. Allen send a copy of the petition to each of the bee-papers to be published, authorizing each editor to receive the signatures and sign them; then let every bee-keeper in America send in his signature to some one of the editors, authorizing him to sign your name to it; then at a stated time let all the copies of the petition be sent to one party to be presented to Congress, praying for and urging their immediate action. Thus it can be done quick, and done well. Now is the time to work, before our business is ruined by the vile trash, glucose. Now let every man put his shoulder to the wheel and give one mighty heave, and we will be out of the mire again and look to a bright future.

Eminence, Ky., Feb. 2, 1881.

For the American Bee Journal.

Our Bees.

JOHN CRAYCRAFT.

Our bees are about all gone, dysentery has taken about all of them; out of 46 colonies that I put away the last of October, I have but 3 left to tell the sad fate of their comrades. About 3 weeks ago they were apparently all right and alive, but were very restless and uneasy, but could not get out the weather being so cold and stormy, until last Sunday, Jan. 30, being warm and pleasant so that bees were out, and had a good cleansing flight—that is, what were alive. In examining the hives, I find them all dead and covered with their excrement, in one stinking mass among the combs and on the bottom of the hive. They had consumed but very little of their stores since I put them away, about the last of October, there being frames of sealed stores in nearly all the hives. I can attribute their loss to no other cause but there being so much of the juice of peaches and apples stored late in the fall, which with what fall honey was gathered formed a thick jelly-like formation containing acid and an alcoholic substance, and with the long confinement from about Nov. 10th to Jan. 30th, with only a few hours during all that time when they could get out, and then only to fall on the frozen ground and perish.

Out of near 1,000 colonies in this county reported last October, I think I can safely say that there will not be 50 colonies left, from the reports I have gathered the past few days. In some localities in this county there is not a colony left, especially is this the case where the most peach orchards are, and where there were no peach orchards near there are a greater number of colonies alive.

This is not a very flattering prospect for keeping bees here this year; but we are not without hopes, for I am making preparations to get bees from the South. I think we have as good location in this county for producing honey as there is in the State. Success to the AMERICAN BEE JOURNAL.

Salem, Ind., Feb. 2, 1881.

For the American Bee Journal.

One-Piece vs. Dovetailed Sections.

S. D. RIEGEL.

The article on "Hive and Section Making." by James Heddon, in the AMERICAN BEE JOURNAL of Feb. 2, contains very much that I can heartily endorse, in fact expresses very nearly my own views, especially that portion of the article relating to hives; but when it comes to sections I feel like putting in a strong protest. I quote as follows from the article: "I object to the all-in-one-piece section. and do not use them because of that naughty little sharp corner, that is always catching and causing the next section to leak, when raised up and pushed down into the case; also, because they are too liable to break, both at the time and after bending, and are not so true and solid as good dovetailed work." Now I do not know what kind of all-in-one-piece sections friend Heddon has tried, but I do know that in all that I have tried or used I have never observed "that naughty little corner" to which he refers, in fact, I do not know what sort of a corner he can mean. I have noticed no difference as to corners between the all-in-one-piece or dovetailed sections. Again, "they are too liable to break, both at the time and after bending, and are not so true and solid as good dovetailed work." I feel so confident that friend Heddon is mistaken in these last assertions that I would be willing to have a practical test made of the matter by each of us furnishing 500 sections to be placed in the hands of ten experienced bee-keepers, giving each of the ten 50 sections of the dovetailed and 50 of the all-in-one-piece sections, and with the agreement that the Editor of the A. B. J. select the ten bee-keepers from those who are not interested in the manufacture or sale of sections. they to report at the National Bee Convention next fall, and if the decision is not in favor of the all-in-one-piece section, two to one, a premium of $10 to be paid by the National Bee Association—if they are willing to contribute it—shall be paid to friend Heddon, but if two-thirds or more of the 10 bee-keepers decide in favor of the all-in-one-piece sections, then the $10 shall be paid to me. The decision to be based on strength, solidity and trueness of the sections, I make this offer, not for the $10, but that bee-keepers may know the facts in the case. If dovetailed sections are better than the all-in-one-piece, we should use them, if not, we should discard them, as they are more expensive to make and are not so handsome as the others. What say you, friend Haddon? Don't you think we had better have this matter decided as proposed above and let the bee fraternity be benefitted by the decision?

Adelphi, O.

[The suggestion of a test in the matter of sections is a very good one; but inasmuch as both Mr. Riegel and Mr. Heddon are interested in the sale of the sections preferred, we can hardly see the justice of the proposition that the National Convention contribute $10 for advertising special wares. Rather would we see the contribution of $10 *go to* the National Convention by the fortunate contestant, who could well afford to do so, considering the notoriety he would gain thereby.—ED.]

For the American Bee Journal.

My Experiments Wintering Bees.

C. THEILMANN.

I have for the past 10 years been experimenting in wintering bees, both in and out doors, but as yet have not found an infallible way, in all cases and circumstances against some losses, in wintering my bees; but find the out door wintering, packed in chaff on summer stand, less trouble and loss, as cellar or prepared bee-house, for this climate; it is quite a job to carry 140 to 150 colonies (from and to a hill-side) at least once or twice in and out of cellar or bee-house, to give them a cleansing flight when the weather is warm enough, and if they are left in doors 3½ to 4 months, they will get very uneasy on account of getting so heavily loaded with feces, and to my experiments, perish, or get the so-called dysentery, before they can be set out on their summer stand, in the spring; therefore I have quit wintering in-doors entirely; I have packed my 147 colonies with chaff, on summer stand, in Langstroth hives, again, this winter, and as another experiment, I have partly covered them with snow. over the packing, with an open space in front from the entrance, 1 inch high by 6 inches wide; they are all alive yet and seem to do well, with the exception of a few, in whose entrance ice threatened to close the passage of air, which I melted away with a hot iron, but I roused up the bees badly, in doing so. Some of those colonies have been uneasy since. It has not been warm enough here for bees to have a cleansing flight (and the few which try to fly drop on the snow never to rise) ever since the latter part of October; it has been steady cold weather, and a few times 35° below; for the past week it has been nearly constantly snowing, and blowing. The snow now is nearly 3 feet deep on the level.

I have read Mr. Doolittle's article, "Covering bees with snow," in the BEE JOURNAL of Feb. 2d, with much interest, on account of experimenting myself with snow this winter. I would like to ask Mr. Doolittle, through the BEE JOURNAL, the question, whether he covered the whole hive all around with snow; whether he left any uncovered space in front, or to the entrance; and how long he left them so covered?

The fore part of last summer was very poor for bees here. I started with 125 colonies; some of them were very weak and I had to feed them from June 10th to the 18th, from then to the 29th they made their living, when basswood commenced to blossom, which was so abundant and filled with nectar, that they filled up their hives, besides getting about 3,000 lbs. of surplus honey.

My bees are nearly all hybrids, with a few exceptions of blacks. Fourteen years ago this winter, I found a colony of blacks or natives, or the so-called wild bees. By chance I chopped down a tree in which they were hiving; this was my first colony. From them, and some other wild bees that came to my premises in swarming season, I have reared my stock. How they got mixed with Italians I do not know, the nearest Italians kept around here, were about 5 miles.

Theilmanton, Minn., Feb. 5, 1881.

LATER.—Feb. 8.: Within the last 4 or 5 days, considerable ice gathered in the entrances of my hives. I have tried another way to loosen or melt it away, in which I succeeded; it was done by covering the ice with salt. I have spread it on in the evening, and the next morning the ice was melted or loosened so that it could easily be taken away; while on a few hives with icy entrance that were not salted (on purpose for trial) the ice froze solid. It was 20° above that night. This does not disturb the bees at all, and is a far better way than the above described iron. Bees in this vicinity that are out-doors, unprotected, are nearly all dead.

No trains or mail have gone east from here since the 4th inst., and the country travel is almost entirely stopped on account of snow-drifts. Weather has changed, and is almost warm enough to-day for bees to fly. They want it badly. Success to the BEE JOURNAL, I read it with much interest and pleasure.

SELECTIONS FROM OUR LETTER BOX

Doing Well.—As I have observed no report from this part of the country, I thought I would send you a few lines. I commenced the spring of 1880 with 10 weak colonies and no honey; I increased to 14, obtained 150 lbs. of comb honey and 70 lbs. of extracted, and my bees are well supplied with honey for the winter. I use the Langstroth hive. Bees in this locality had no flight for 7 weeks, lasting till Jan. 28, which was a warmer day. Then I raised the hives and swept the dead bees out. There were from a small handfull to a pint under each hive, and in one the bees were all dead, leaving about 20 lbs. of honey in the hive. My bees are on the summer stands covered with chaff. Did the colony mentioned starve or freeze, and is the amount of bees I swept from the others liable to injure them much?

ALBERT LONG.

Iola, Ill., Feb. 1, 1881.

[The bees probably starved—that is, a "cold snap" came on while they were removed from their "base of supplies," and they perished. If your colonies are strong, the loss of from a handful to a pint each will do no harm.—ED.]

Coldest for Nine Years.—The winter so far has been the severest known for nine years in this part of the State. The cold weather commenced in November, and it shows no signs of letting up as yet, so that bees have been confined to their hives for 3 months, and the prospects are that they will be for 2 months to come. I think that probably ½ of the bees in this section will be dead by the 1st of April. It is thought that the season of 1881 will be a good one for bee-keepers—I certainly hope so. The JOURNAL is exerting a very good influence on the bee-keepers of this section as can be seen by the care they give their bees. Success to its efforts.

HARRY G. BURNET.

Blairstown, Iowa, Feb. 5, 1881.

Early Work.—At this date my bees are busy bringing in pollen, and the prospect is very good for a yield of honey the coming season.

G. B. WALLACE.

San Bernardino, Cal., Jan. 30, 1881.

Do Woolen Blankets Absorb?—This year in packing my bees for the winter, I put on thick woolen quilts over the frames and below the chaff cushion. Have had considerable trouble with ice forming on the bottom-board so as to obstruct the entrance (the summer entrance ½x4 in. is open with no upward ventilation). and I fear the woolen quilts repel the moisture instead of letting it pass through to the chaff. Will the BEE JOURNAL tell me is this so, or is the trouble caused by the long continued cold? They have had no flight since early in November. Am preparing for a big funeral, at which all poor bee-keepers will be sympathetic mourners. Am glad the "new departure" is a success. "Growth" is the world's watch-word.

E. M. R.

Flint, Mich.

[Woolen blankets will absorb the moisture very nicely, and where there are 2 or 3 used in one hive, it is not uncommon to find the upper ones quite wet, while the lower blanket will be comparatively dry and quite warm. The trouble is undoubtedly caused by the intense cold and long confinement. A correspondent in this number suggests that the sprinkling of salt in the entrance will prevent the ice formation. We have made no experiments in this line, and cannot say whether the salt-water or brine will be distasteful to the bees, but presume it will not. Some bee-keepers go so far as to claim that salt is beneficial.—ED.]

Bee Pasturage, Etc.—I am glad overstocking and growing bee-pasture is receiving so much attention by writers in the BEE JOURNAL. When I located my apiary here I think there were not to exceed 25 colonies within a radius of 3 miles of me. At that time there was little trouble to get good results from bees, with little attention and little knowledge of scientific management. But now there are, I presume, no less than 400 colonies within the radius above mentioned, and we find it requires the best of apiary apparatus and the most scientific management, coupled with "eternal vigilance," to get partially satisfactory results. I live by a grove of young timber. Scattered through it were nice young bass-wood trees; on my land I have cut away the other trees from around them, till now I have 400 nice trees. from 6 inches to a foot in diameter. Just one-half mile from my trees lives a man who keeps about 100 colonies. He had more bass-wood on his land than I had; but he is stripping his place of bass-wood, cutting it into cord-wood. I asked him to preserve his trees for his bees, but he replied: "You and my other neighbors have saved enough to keep my bees." So it goes. I sowed last spring, five acres of melilot, but we had a terrible wind which blowed nearly all the loose dirt and seed into the fence corners. so I have not a half a stand, but I shall let it stand and make what it will. I am out of seed or I would sow five acres more next spring. I believe this winter will cause the loss of half the bees in western Iowa. I see friend Martin. in a recent number of the JOURNAL, feels confident of no loss as he says he has his bees packed in straw or chaff. I have tried the chaff theory to my satisfaction, and find some seasons I have lost more of those packed in straw than of those left unprotected on their summer stands. I used to be an enthusiast for cellar wintering, but while I lost none in the winter, I suffered fearfully by spring dwindling and spring desertion. I have seen considerable of that peppery honey Prof. Cook speaks about. A grocer in our town bought a lot of nice white comb honey, but it was so hot no one could eat enough of it to make him sick unless he was a tobacco chewer. I never obtained any of it myself, as I am not near any low land. All I have seen comes from localities near swamps. I am asked almost daily by those who have some of it, what it is gathered from, and from the best observation I can make, I think it is gathered from a kind of swamp milk-weed. There is no laurel in this section. The hot honey seems to be stored by the bees only in seasons of great scarcity, as I never knew of any complaint during good seasons. I am so pleased with the Weekly BEE JOURNAL. It is certainly a great success, so far as your readers are concerned at least, and we hope it will be equally so to you.

WILLIAM MORRIS.

Anderson, Iowa, Jan. 31, 1881.

[The hot honey spoken of is probably collected from the prickly ash (*Xanthoxylum Americanum*), which grows in great abundance on the lowlands in the heavy timber of nearly all the Northwestern and Central States. We have also noticed much of it in Missouri, Kentucky and Tennessee. The prickly ash is. a profuse bloomer, and bears many berries of a very sharp, pungent taste. We have seen bees on the flowers, but never to sufficient extent to induce the belief that it produced any amount of honey; it might be, however, in cases of great scarcity of honey, that bees would store enough from it to affect and spoil all the surplus.—ED.]

How will they come out?—It has been so cold here ever since the 10th of November that bees could not fly out without freezing. About the 20th of November I moved my bees one-half mile and placed them under a hay-shed fixed on purpose for them, under a high cow-shed. I have Mitchell's hive, I guess it is, it came from McDougal, of Indianapolis, Ind. When I moved them I closed them up with the division boards as well as I could, and covered the frames with dry cloths, mostly woolen. The hives then were full of frost, and shortly afterward I found them damp; I dried all the coverings, and now they all appear dry and as lively as in summer. I am a beginner with bees. I purchased 6 colonies last spring, and they increased by natural swarming to 21. I obtained over 100 lbs. of comb honey from the first new swarms. I am somewhat worried since seeing in the JOURNAL the danger of disturbing them in winter. Some of them do not smell very sweet now.

M. O. TUTTLE.

Saratoga, Iowa, Jan. 31, 1881.

Good Prospect for Basswood.—Hearing that the bee-keepers of Wisconsin think that most of the basswood in their State is dead, on account of the extreme cold weather we have had during the past 3 months, I would say that I have examined the basswood in this vicinity very closely, and find it all alive; buds are swelling now, and look as healthy as ever. The bees, as a general thing, are doing very poorly, and I believe that one-half of the bees that were put into winter-quarters last fall are dead, those alone surviving that were well packed on summer stands. It froze up here about Nov. 11th, and there has not been a day since that the thermometer indicated over 30° above zero at noon, and twice it has been 40° below zero in the morning. The ice is now 30 inches thick here on the Trempealeau river; but, notwithstanding the extreme weather, the bees that were well packed on summer stands are in very fine condition. I will now attempt to describe the location here. In the first place, we being near the Mississippi river, the country is very uneven; the soil in the valleys is very rich and produces a great number of wild flowers; white clover is very abundant, and dandelions grow without end. The creeks are lined with willows, which furnish the best of bee-pasturage in the spring; besides these, we have the basswood, which is practically boundless in extent, as the hillsides are covered with young basswoods from 1 to 15 feet high. I have introduced alsike clover in my section, that is that place where my farm is, about 9 miles from Arcadia. The only question here now is: Can bees be wintered with surety in this place? If so, then the amount of honey that can be produced in Western Wisconsin is simply enormous.

R. A. MORGAN.

Arcadia, Wis., Jan. 31, 1881.

Complimentary.—Our bees had a good "fly" on the 30th of January, being the second flight that they have had since the 1st of November. Such a winter as we are experiencing is a new thing to the oldest inhabitant. The farmers who keep bees, or rather let the bees keep themselves, have lost fearfully, perhaps one-third—equal to the increase of last year—has already perished, and more will go. I could not express to you the real pleasure it gives me to see the AMERICAN BEE JOURNAL "all fresh" once a week. I confess that I had my doubts at first as to whether a weekly bee paper could keep up as high a standard of bee literature as that to be found in a well edited monthly; but in this I was agreeably mistaken. The matter found in each weekly issue has been in every respect equal to that found in the monthly, before the change.

G. W. DEMAREE.

Christiansburg, Ky., Feb. 3, 1881.

[We are fast reaching the fruition of our ambition—*i. e.*, to make the JOURNAL so attractive that the prejudices of the few against change in form, and the doubts of many about keeping up its high standard, will be absorbed in its increasing interest.—ED.]

To Prevent Robbing.—My bees have not had a fly for 3 months, the weather has been so cold and steady; we have a thaw to-day, and I hope they will soon get a chance to fly. I think my bees are all alive. It seems there still are bee-men who do not know how to stop robbing, so I will give my remedy. Use a wet rag folded up and laid at the entrance, regulate according to the extent of the case on hand, and you will never fail to stop it. I have practiced this plan for 2 seasons, and never failed in a single instance. Bee-keepers feel somewhat gloomy in this locality on account of the hard winter.

H. S. HACKMAN.

Peru, Ill., Feb. 8, 1881.

Hard on Bees.—This is the most severe winter on bees that I have had in my 24 years' of experience. My bees gathered very little honey during the fall season, except that which was gathered from fruit and a cider press which was only a few hundred yards from my apiary. The unnatural food and cessation of breeding early in the season, is the cause of heavy loss during the severe weather from Dec. 29th to the present time (the weather still being very cold). I found one of my best colonies queenless; in looking over a colony apparently dead, I found that the queen with a few dozen workers, with proper care would revive. I took both hives into the house and determined to save the one if possible. After getting them thoroughly warmed, I introduced the queen in the queenless colony, on the evening of Feb. 2, with the theromometer 6° below zero. Would it not be a good plan for all the bee-keepers to report next spring just how many colonies they had last fall, and how many they have left when the honey season opens? Is there a stronger argument necessary for the bee-keepers to teach them that healthy food and proper care in putting them up for winter is a positive necessity? Surely, my fellow bee-keepers, we must learn something from the severe lesson we are getting, if we expect to succeed better hereafter.

J. H. BUPP.

Glen Rock, Pa., Feb. 2, 1881.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR,

CHICAGO, ILL., FEB. 16, 1881.

The Eastern Conventions.

Having promised to attend the Convention at Andover, O., on the 8th and 9th inst., we concluded to go to the Convention at Utica, N. Y., and attend that at Andover on our return.

It will be remembered that the Convention at Utica. last year passed resolutions denouncing the BEE JOURNAL and its editor, and we thought we would like to see what course they would pursue this year. Of course we were wholly unexpected, but were received very cordially, and by vote were requested to address the Convention on the matters at issue.

Being fully assured of the wisdom of the old motto—" Truth wears no mask, bows at no human shrine, seeks neither place nor applause—she only asks a hearing"—we accepted the invitation, and in the light of facts and incontrovertible arguments. we discussed the whole subject. The result was that the Convention voted to drop the matter entirely, and devote its time and energies to the discussion of practical issues, cordially invited us to participate in the discussions, and unanimously elected us an honorary member of their Society, Thus ends the recent "unpleasantness," to the satisfaction of all concerned.

The general expression was that of gladness that we were present. and *all* (without exception) endeavored to make the Convention as pleasant and profitable as possible. A report of two days' proceedings may be found on another page.

At Andover, O., we met with many old friends, and had a very pleasant and profitable meeting. A report of this Convention will be found in a future issue of the BEE JOURNAL.

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☞ The President of the British Bee-Keepers' Society, the Baroness, Lady Burdett-Coutts, took to herself a husband last Saturday. The happy bridegroom is Mr. W. Ashmead Bartlett, a worthy American gentleman. The AMERICAN BEE JOURNAL presents its compliments, and wishes the happy pair a very enjoyable future. The Lady is known throughout the civilized world, as one of the greatest public benefactors that ever lived.

◆

☞ The *Indiana Farmer* says that bee-culture is becoming a profitable industry in Texas, especially in the valleys of the Brazos and Colorado rivers, whose extensive bottoms furnish a wide range for the honey-gatherers. A Southern paper says "quite a number of enterprising men have given it their sole attention, finding the industry vastly more profitable than cotton raising."

◆

☞ Floods are now the order of the day everywhere. This has been the severest winter, the world over, within the memory of the oldest inhabitant.

Apis Dorsata of Java.

We are in receipt of the following letter from Mr. Thomas, a gentleman for whose opinion we have much respect :

Coleraine, Mass., Feb. 1, 1881.

I am not yet convinced that the *Apis dorsata* is incapable of domestication, notwithstanding all that has been said in the JOURNAL to the contrary. I do not think the fact of their building their combs on the limbs of trees in the open air, is any proof that they cannot be domesticated; doubtless the Italians would do the same if left to themselves in such a warm country.

Mr. Cary, some years ago, instructed a missionary, who was about to return to the Island of Ceylon, where this bee is also found, how to prepare and pack a colony for shipment, in the hopes that he would send him one on his return. But as he never received the bees or heard from him, it is supposed that he was unable to procure them.

In conversation with a missionary some time since, I inquired about the bees in Java, and he said that he knew of no reason why they could not be "tamed," as he expressed it. There was a colony found in the stump of an old tree in a flourishing condition, which the natives smoked out and obtained a large amount of honey.

The natives ascend the tree by pegs driven into the wood, and after smoking the bees off of the combs, cut them off and let them down by a cord to the ground.

I was very much interested in Rev. Mr. Langstroth's article on the *dorsata*, published in the JOURNAL, vol. xiv., page 417. He was very much interested in this bee, and I believe if his health had been restored, he would have kept this subject agitated until there was some move towards importing them.

As for their stinging qualities, I for one would be willing to be stung some, if they would prove as good honey gatherers as I firmly believe they would. If Mr. Hawley would give up his "stingless bee" enterprise, and direct his attention to the *Apis dorsata*, I think it would be better for him and all the rest of us.

I look forward to the importation of this bee, at an early day, into the United States, and should my hopes reach fruition. and the *dorsata* should be able to reach the hidden nectar in the red clover, it will prove a mine of wealth to the bee-keepers of the United States.

E. A. THOMAS.

We are not aware of having written a word to discourage the importation of the *Apis dorsata*, or any other race of bees which may by any possibility improve, or be an improvement upon, our present excellent Italians; but, rather, are most desirous to have a fair trial given to all—the Cyprian and Palestine bees, *Apis dorsata*, *Apis zonata*, and even the Caucasian bees. American bee-keepers are not to be satisfied with anything short of the best, come from where they may, and cost what they will. In making up the verdict, all the points must be taken into consideration, and much time consumed in deciding which are best. Those which would be best adapted to Norway, Sweden and Russia might not prove best for our latitude and flora, any more than would the. bees from Java, Ceylon or Africa. Research and exhaustive experiment may demonstrate that it is not a pure race of bees we want, after all; that we may find most suitable a race or variety combining the characteristics of those of the two geographical extremes —a variety capable of withstanding the rigors of a Russian winter and the scorching drouths of an African summer—or, at least, an average mean between the two.

We have no doubt the queens from Palestine have already proven superior in one point at least—that of greater prolificacy than anything we have heretofore possessed. Should, however, the theory of certain deterioration in this country prove correct, as is claimed in regard to the Italians by an eminent scientist and scholar, then there is no permanent advantage gained by their introduction. We would be obliged, at last, to verify Mr. Robinson's record (see 9th paragraph, 3d column, page 46 of Weekly BEE JOURNAL) by substituting some approved foundation. We are satisfied, however, no good stock, whether bees or anything else, will deteriorate in the hands of our intelligent and emulative breeders, so far as practical purposes may be at issue. Nor do we doubt that the Cyprians may possess some very desirable characteristics that can be utilized with advantage by our apiarists; but what they may be we are not yet prepared to say. A better acquaintance with *Apis dorsata* and *Apis zonata* will certainly develop traits that can be borrowed with great profit by the bee-keepers of America, and we await their introduction with hope and somewhat of impatience. Meantime, we must relax no effort to improve our present desirable strains; systematic compilation of data, scientific application of knowledge, and careful selection of the best, and *Apis Americana* will wave its untiring wings over the flowers of Europe, sipping as well the dewdrop from the rose of Sharon as the nectar from the lilacs of Italy, the rosemaries of Spain, the clovers of Holland, and the goldenrods of America.

Let the verdict of apiarists be favorable or unfavorable for the Cyprian and Syrian bees, Messrs. D. A. Jones and Frank Benton deserve the thanks of all for their untiring perseverance. and it only awaited their latest enterprise (the trip to Java, Timor and the Phillipine Islands) to record their names among the benefactors of the age.

While much care has been taken to breed our bees up to the requirements of the floral world, and one (Capt. W. F. Williams, of Ohio) claims to have developed their tongues to 11-32 of an inch in length, our bee-keepers have neglected to grow the flowers to the requirements of their bees. The suggestion of Dr. C. C. Miller, President of the N. W. Bee-Keepers' Association, that perhaps the quickest way to adapt the bees' tongues to the red clover would be to shorten the flowers to the length of their tongues, seems to have been overlooked. The Alsike is undoubtedly a hybrid, perhaps white and red clovers crossed, and if the latter can be hybridized it can be grown with shallower nectar-tubes. In Germany experimenters are acting on his hint, with satisfactory prospects of success. Mr. Hasty, of Ohio, is also experimenting with the same object in view. It is a subject worthy of more than a passing thought, and deserves studied consideration.

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☞ At the Utica Convention we met Mr. J. H. Nellis, the genial editor of the *Bee-Keepers' Exchange*. We are pleased to notice the strong position he takes against the adulteration of honey. Mr. L. C. Root, the able ex-President of that Association, with Mr. Nellis as alternate, was appointed to wait on the New York Legislature, in person, and demand that the law against adulteration of sugar and syrups should also include honey. We hope soon to give a favorable report from this committee.

Moisture Absorbents in Bee Hives.

In our latitude. 38th parallel, the weather is so changable that I often think we have as much trouble to winter bees successfully as they do in Minnesota and Wisconsin. Their frequent flights through winter cousume much honey; the long rains (winter) and sudden freezing keep the insides of hives in anything but a healthy condition for the bees. This led me to study the best material to overcome the trouble, and I see Mr. C. Lover, of Maryland, has sounded the key-note and whole secret of dry hives, viz: I have heard old soldiers say they were "as dry as a lime-kiln." The chemist uses lime over his alcohol to abstract the last drop of water contained in it, thus making it absolute. So we must do to protect our bees—use anything, patented or not, so we accomplish the saving of our bees.

Now, I go further than Mr. Lover; I lath and plaster my hives 1 inch thick all around inside, with mortar made of sharp sand and plaster of Paris; this makes it cool in summer, warm in winter, and with dry lime in the cushion over their frames, I feel. from this winter's experience, that I have found it. I put 1 small colony in my plastered hive last spring; they did well, but owing to the failure of honey secretion they gathered no surplus. I examined all (20 colonies) a few days ago, and the "lime-kiln hive" was the only one containing pure combs—every other one was more or less moldy; but I never saw bees doing better than under the lime cushion.

I use gunny sacking, with cheap cotton batting laid over that, then sew 3 sides and put in about 1½ inches lime. I use air-slacked lime, thoroughly dried in the cook-stove oven before putting it in the cushion. It is not a little singular how often the same idea possesses the minds of individuals very distant geographically, and in very much the same way. As I was making the experiment of the amount of carbon dioxide per hour exhaled by different persons (fat and lean) with the lime-water test, when the bees came into my mind, and I went straightway and made a deputator for one hive with the best of results. I hope others will try these interesting experiments.

W. VAN ANTWERP, M. D.
Mt. Sterling, Ky.

The matter of absorbents has been a cause of considerable experimentation with us in the past, and we are exceedingly glad to find it engrossing the attention of scientific men such as Dr. Van Antwerp, and others. The winter now closing is demonstrating very satisfactorily that it will not do to depend wholly on chaff-packing under all circumstances, nor is it possible or convenient for all to winter in good cellars, for the reason that good cellars are not available to all. Again, there is much trouble entailed in cellar wintering, such as the proper preparation of the cellar, placing the bees within it, removing them to the open air for a flight if perchance the weather should moderate to allow of it, then putting them back, and again setting them on the summer stands when winter is through, in all of which operations there is a possibility of seriously disturbing the bees at times when it is very hazardous to do so. Also, many trace serious spring dwindling to the wintering of the bees in the cellar as the prime cause, and are anxiously looking for a more satisfactory method, and devising schemes and experiments for out-door wintering. So far, however, chaff-packing has proven no less unsatisfactory, and many this winter will nearly lose confidence in it, and drift around for a substitute which will be more certain in its results and less expensive in practice.

Foreseeing the need or demand for a radical change, we instituted a series of experiments two years ago, both with lime as a dryer, and sulphuric acid as an absorbent. The lime we employed in a crude state—that is, unslaked—but found it too heating when used in any quantity, and not absorbing enough if used in small quantity. The sulphuric acid was much more satisfactory in its results. We found by the use of one ounce of sulphuric acid, diluted with the same quantity of water, placed in a saucer, and put on the top of the blanket, with a screen or wire cloth covering to keep out the chaff, then covering all with packing, there was no perceptible moisture to be found in the hives. Of all the hives thus prepared, every comb was perfectly dry. So well pleased were we with the result, that we intended preparing ten last winter in the same manner; also, to thoroughly try slaked lime in the manner as above described by Dr. Van Antwerp, but a very busy fall, and the early advent of winter, entirely prevented the prosecution of further experiments. We intend to thoroughly test both methods, as also plaster of Paris or side-walls for several colonies, and will give results hereafter. Meantime, we suggest that the Doctor test sulphuric acid. We are almost persuaded he will like it much better than his "lime-kiln."

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Suppression of Foul Brood.

At a meeting of the Southern Michigan Bee-Keepers' Association, held at Battle Creek, on the 9th inst., the following preambles and resolution were adopted, as reported by the Committee, approving of the bill now before the Legislature of that State for the suppression of foul-brood:

Whereas, It appears in evidence that a bill has been presented in the House of Representatives which has for its object the suppression of the disease and scourge among bees known as foul-brood; and

Whereas, Said bill has been placed on file and numbered 54; therefore,

Resolved, That as a sense of this meeting, we hail this action on the part of the State Legislature as timely and good and would strongly urge the passage of said bill, or a similar one, looking to the suppression and extirpation of this dreaded disease among bees, believing that it is a proper subject for legislation, for the protection of those engaged in bee-culture.

L. McCoy,
E. B. Southwick, } *Committee.*
J. B. Ide,

The following is a copy of the bill now before the Legislature of Michigan, referred to in the above resolution. It was introduced in the House on the 3d inst., by Mr. Root, and is recommended by the Committee on Horticulture:

A BILL to prevent the spread of Foul Brood among bees, and to extirpate the same.

SECTION 1. *The People of the State of Michigan enact*, That it shall be unlawful for any person to keep in his apiary any colony of bees affected with the contagious malady known as foul brood; and it shall be the duty of every bee-keeper, as soon as he becomes aware of the existence of said disease among his bees, to forthwith destroy or cause to be destroyed all colonies thus affected.

SEC. 2. In any county in this State, in which foul brood exists, or in which there are good reasons to believe it exists, it shall be lawful for any five or more actual bee-keepers of said county to set forth such fact, belief or apprehension in a petition addressed to the judge of probate, requiring him to appoint a competent commissioner to prevent the spread of said disease and to eradicate the same; which petition shall be filed with, and become a part of the records of the court where such application is made.

SEC. 3. It shall be the duty of the judge of probate on the receipt of the petition specified in section two, of this act, to appoint within ten days thereafter a well known and competent bee-keeper of said county, as a commissioner, who shall hold his office during the pleasure of said court; and a record of such order of appointment, and revocation, when revoked, shall be filed as a part of the records of said court.

SEC. 4. It shall be the duty of said commissioner, within ten days of his appointment as aforesaid, to file his acceptance of the same with the court from whom he received his appointment.

SEC. 5. Upon complaint of any two bee-keepers of said county in writing and on oath, to said commissioner, setting forth that said disease exists, or that they have good reason to believe it exists within said county, designating the apiary or apiaries wherein they believe it to be, it shall become the duty of the commissioner, to whom such complaint is delivered, to proceed without unnecessary delay to examine the bees so designated, and if he shall become satisfied that any colony or colonies of said bees are diseased with foul brood, he shall without further disturbance to said bees, fix some distinguishing mark upon each hive, wherein exists said foul brood, and immediately notify the person to whom said bees belong, personally or by leaving a written notice at his place of residence, if he be a resident of such county, and if such owner be a non resident of such county, then by leaving the same with the person in charge of such bees, requiring said person, within five days, Sundays excepted, from the date of said notice, to effectually remove or destroy said hives, together with their entire contents, by burying them or by fire.

SEC. 6. If any person neglects to destroy or cause to be destroyed said hives and their contents in manner as described in section five, after due notification, he shall be deemed guilty of a misdemeanor, and punished by a fine not to exceed fifty dollars for the first offense, and for each additional offense he shall be liable to a fine not to exceed one hundred dollars, at the discretion of the court; and any justice of the peace of the township where said bees exist shall have jurisdiction thereof..

SEC. 7. The commissioner shall be allowed for services under this act, two dollars for each full day, and one dollar for each half day, the account to be audited by the board of supervisors.

SEC. 8. In all suits and prosecutions under this act, it shall be necessary to prove that said bees were actually diseased or infected with foul brood.

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☞We notice in the telegraphic dispatches from Washington, that the House committee on epidemic diseases have agreed to report favorably on the bill authorizing the President to appoint a commission to investigate the adulteration of food and other articles, and appropriating $20,000 therefor. Slowly, but surely, we are moving on the fortifications of the enemy.

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☞ The Marion, Iowa, *Register* of last week contains the following item upon the subject of food adulteration:

> The BEE JOURNAL makes a most happy illustration of the present state of things, by suggesting that if a man tries to pay for counterfeit butter with counterfeit money, he will be at once apprehended and sent to the penitentiary; and that no one would pursue him with deeper wrath than the fellow who was trying to put off the bogus butter!

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☞ "Seed Time and Harvest" is the name of a monthly that is sent free to agricultural men. The article on "hot beds" in the January number, is very complete and contains many hints of value to gardeners. It is published by Isaac F. Tillinghurst, La Plume, Pa.

AMONG OUR EXCHANGES.

BEE-KEEPERS' INSTRUCTOR.

Importation of Bees.—F. L. Wright, Plainfield, Mich., makes the following very sensible suggestions:

> A certain class of bee-keepers are laboring hard to convince the people that the imported queen is the queen; while at the same time another class would have us believe that the imported queen is "good for nix," and that the home-bred is the queen for everybody.
>
> One knows that there are black bees in Italy; another that there are not.
>
> One claims that in Italy queens are reared in a very careless, shiftless manner; another says they are bred in the most careful manner.
>
> Now the question is, Mr. Editor, how are we going to decide which is right and which is wrong? or which are the best and most profitable, the imported or the home-bred? "The proof of the pudding is in the eating."
>
> Most of us have plenty of imported queens. We also have the light-colored home-bred. Now, when the season opens let us take one or two colonies containing our choicest imported queens; ditto of our best and lightest-colored home-bred, and set them aside to experiment with. Keep an exact account of all work done with each; the exact number of pounds or ounces of feed fed to each; the exact number of pounds or ounces of comb or foundation furnished each; and lastly, the exact amount of honey produced by each, and the condition they are in for winter.
>
> How many will try it? If we experiment faithfully we may perhaps satisfy ourselves, if we cannot convince others of the relative merits of each.

New Races of Bees.—L. H. Pammel, Jr., La Crosse, Wis., writes as follows on the question:

> The enthusiast says yes; but the man of prudence says no. Let every bee-keeper for a moment consider the true merits of the races already introduced here. Are they not prolific, good honey gatherers and adapted to our climate? If they fail to gather surplus some seasons, it is either through negligence on the part of the bee-keeper, or from the arbitrary powers of nature.
>
> Some bee-keepers say: "We want to import a race of bees that will work on red clover." They do not show wisdom by making such wild assertions; for has not nature made ample provision for races of bees that have a shorter proboscis, or tongue? Look at the thousands of wild flowers blooming in our forests and meadows, and you can see both the Italian and black bees entering their cavities in search of honey, and filling themselves with the nectar extracted from these beautiful flowers of nature. Look at our large bumble-bees; they are not constructed to become great honey gatherers (although they work on the red clover) as they are so large and clumsy that they cannot enter the blossoms with as much ease as the smaller species of bees; neither do they show such signs of activity; and for these, or some other reasons, are worthless. There are many Asiatic species which I believe have a proboscis large enough for our red clover, but I doubt whether American ingenity will ever hive them, or import them to our shores; neither do I think it desirable, not because I believe the introduction to be of no use. As Wallace says: "No barrier is in the road for them if they want to sting." Such bees I believe would be a nuisance to us; for no human being would dare to go near them. "Let well enough alone," should be the motto of every bee-keeper. Our aim should be to improve those races which have stood the test and are warranted to be superior to the common bee. The law of "the survival of the fittest," will not improve our gentle Italians, but through careful "selection" we can.

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DOMINION BAZAAR.

New Bees.—The Editor remarks as follows on this subject:

> We suppose that Mr. Jones has called attention to the fact that there are better bees in other lands, and that others will be induced to look for "new kinds." A clergyman in Asia has discovered a different race of bees there, and soon we may expect to get specimens of the new China Porcelain bees.

The Bee Journal.—The Editor gives the Weekly BEE JOURNAL the following notice:

> The AMERICAN BEE JOURNAL is to hand in its new form. It is now a Weekly, and presents a handsome appearance. We wish it success in the new departure. Standing as it does in the front rank of bee papers we have no doubt it will more than keep up the fair name and fame it has won in the past.

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Local Convention Directory.

1881. *Time and Place of Meeting.*
March 12—Mills Co., Iowa, at Glenwood, Iowa.
April 2—S. W. Iowa, at Corning, Iowa.
5—Central Kentucky, at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 18 –Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

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CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
Bee-Keepers' Magazine (A.J.King)	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T.G.Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

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Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 18@20c. for strictly choice white comb in 1 and 2 lb. boxes; at 14@16c. for fair to good in large packages, and at 10@12c. for common dark-colored and broken lots.—*Chicago Times.*

BEESWAX.—Choice yellow, 20@24c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packsges, 17@18c.; fair do., 15@16c.; dark do., 12@13; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 80@85c.

BEESWAX.—Prime quality, 20@24c.

H. K. & F. B. THURBER & Co.

CINCINNATI.

HONEY.—The market for extracted clover honey is very good, and in demand at 11c. for the best, and 8@9c. for basswood and dark honey. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@24c. C. F. MUTH.

SAN FRANCISCO.

HONEY—As freights have advanced, European buyers are out of the market. The new overland route via Atchison and Topeka promised connection and reduced freights on January 1st, 1881, and if so it would have cleared up our market. We quote comb 12@15c. Extracted, choice white, 6½@7c.; off-colors, 6@6½c.

BEESWAX—22@23c., as to color.

STEARNS & SMITH, 423 Front Street.
February 5, 1881.

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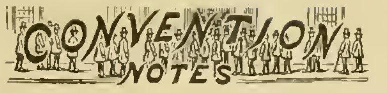
☞ Any one desiring to get a copy of the Constitution and By-Laws of the National Society, can do so by sending a stamp to this office to pay postage. If they desire to become members, a fee of $1.00 should accompany it, and the name will be duly recorded. This notice is given at the request of the Executive Committee.



Southern Michigan Convention.

The Southern Michigan Bee-Keepers' Association held their annual meeting at Battle Creek, Feb. 9, 1881. About 30 ladies and gentlemen were present.

The subject of foul-brood was discussed, and a resolution unanimously adopted, indorsing the action of the committee appointed by the State Bee-Keepers' Convention, to introduce a bill before the Legislature for a law to be passed for the suppression of that dread disease.

Dr. J. H. Kellogg, of the Sanitarium in Battle Creek, gave an able address on the "Adulteration of Sweets," with experiments; showing that most of the sugars and syrups for sale at the present time, are largely adulterated. He tried an article labeled as "Pure Strained Honey," manufactured in the city of Chicago, and found there was but little honey in it, but plenty of glucose.

The meeting adjourned till the first Monday in May next.

B. SALISBURY, *Sec.*

[The report of the committee, as also the Legislative bill referred to, are in another column, of this paper.—ED.]

North Eastern Convention.

The eleventh annual meeting of the North-Eastern Bee-Keepers' Association was held at Utica, N. Y., on Feb. 3–5, 1881, President L. C. Root in the chair. After the reading of the minutes, Treasurer Bacon reported the receipts for the year $93.49, expenditures $62.21, balance $31.28.

Mr. T. G. Newman was invited to address the Association, in reply to the resolutions passed at the Convention of last year, which he did. It was then resolved that the subject be entirely dropped, and not again allowed to be brought before the Convention.

A recess was then taken till 7 p. m.

EVENING SESSION.

A letter was received from Dr. C. C. Miller, of Marengo, Ill., asking that the association prepare a statistical table of results.

The president said statistical tables heretofore had been a failure, because only those who had good yields reported. He thought that the interchange of opinion and results in a general way would be better than to make out a table.

Mr. Doolittle said the table heretofore had been a failure.

Mr. Knox moved that the statistical table be dropped. This was agreed to without formal action.

A communication from Bingham & Hetherington, asking that their smoker be not entered for premium, was received.

Adulteration of Honey.

The following letter on the adulteration of honey was received :

New York, Jan. 31, 1881.

Thinking that you may not be aware of the fact that a bill is now before the New York legislature to prevent the adulteration of sugar, syrup and molasses, I have thought proper to write you regarding the matter, and to suggest that your honorable body take immediate steps to have the bill amended to include honey also, before it is put on its final passage. The bill was presented by Mr. Root, member from Rochester, and is backed by all the sugar refiners of this city as well as those in other cities, who desire to do an honest business and have suffered from the evils of adulteration. I am informed by Hon. W. J. Young, who is an ex-member of the legislature, and also a bee-keeper, that there can hardly be a doubt regarding the passage of the bill, considering the men who stand backing it, and he thinks the amendment to include honey would be readily accepted. In view of the fact that our industry has suffered so much already, and so far as extracted honey is concerned, is in danger of destruction, I hope your president will appoint a committee to confer with Mr. Root and other members interested in the bill and secure the amendment. I would suggest that a statement be prepared, setting forth the extent and importance of the bee-keeping industry, and also of something of the extent of the adulteration of extracted honey, and this latter can scarcely be over-estimated. If you shall succeed with the amendment and the bill passes, you will have accomplished more real benefit to the honey producers and the consumers than has been accomplished by any similar association before on this continent.

A. J. KING.

On motion the chair appointed the following committee to draft a petition to be presented to the legislature on the subject: Dr. A. H. Marks, Mr. Bacon and Mr. Van Deusen.

At this point quite a number of new members were received.

Foul-Brood.

The secretary read an essay written by W. A. House, of Fayetteville, on the subject of "Foul-Brood," which is given below :

As the question of foul-brood is again being brought before the public, I deem it my duty to contribute my experience and treatment of this dreaded disease, hoping it may be of benefit to the experienced bee-keeper as well as the novice. Foul-brood is a disease which attacks the brood, causing it to become a putrid mass, in time destroying the colony, and unless it be given immediate and skillful attention, it will make sad havoc among all the bees in that locality. What are the symptoms or means of detecting the disease ? Those who have had experience can readily detect it in passing close in front of the hives, by a certain peculiar odor, which is indescribable.

During a scarcity of honey robbers will be almost constantly lurking around the diseased colony, and the bees will appear a little dull or dumpish. The novice would naturally pronounce the colony queenless, but in the hands of a close observing and experienced apiarist it would at once create a suspicion of foul-brood. On opening the diseased hive you find the sealed brood with sunken caps and a small perforation in the middle, and upon opening these cells with sunken caps you will find a brownish putrid mass, being tough and ropy and emitting an offensive smell. If the brood is found in this state in clusters of a few cells. with cells of healthy brood intervening, the disease is about one-third advanced. The stage of the disease may also be determined by the color of the larvæ. The more advanced the disease, the darker the mass. What are the causes of foul-brood ? Some writers claim that this loathsome disease was imported. This cannot be true, for I have known it to exist over thirty-five years ago, or long before the first importation of bees into this country.

As to the first cause of foul-brood, I am unable to give a positive answer, but I am of the opinion that it is owing to a certain state of the atmosphere; the disease attacking a colony that is in a certain unknown condition, the same as the first case of small-pox is engendered. As soon as a colony is infected with the disease, unless thorough and skillful treatment be rendered at once, it will spread rapidly, attacking the whole apiary, and all the bees in the neighborhood. At this alarming stage it would be almost impossible to eradicate it, as bees in the woods would die with the disease and thus leave an exposure that would last for years. The infection is contagious only by carrying honey, wax, propolis or pollen from the diseased hive. The swarm close by the side of an infected one is no more likely to become diseased, than the one in the farthest corner of the apiary. I know this to be true.

The disease is spread by robber bees geting into a hive already infected and carrying honey, pollen, propolis, wax or anything pertaining to the diseased hive, to their homes. Robbers will be lurking around a diseased colony almost constantly ; and the first favorable opportunity offered the robber enters and is almost sure to get enough of the honey to transplant the infection in the parent hive. Soon more bees effect an entrance and finally they make no resistance to the robbers, and many colonies in the apiary become engaged in carrying away the stores, &c., and with them the disease. If any pieces of comb, frames, or any part of the hive, boxes, stand-boards, honey, or in fact any thing pertaining to a hive of foul-brood be exposed for months or even years afterward, the disease will surely be transmitted to your healthy colonies again.

In many cases the disease is spread by the bee-keeper; who after performing some manipulation of the infected hive, goes to some healthy colony, opens the hive and proceeds to supply their wants without thoroughly washing his hands. The honey, propolis or wax thus conveyed from the one hive to the other, has the same effect as though the bees carried it. Then again, while operating with an infected hive, nine times in ten bees from other colonies will get enough honey to convey the disease. This is one cause why those who try experimenting with acids, &c., cannot eradicate the disease from their apiary. As soon as foul-brood is discovered in any hive in the apiary, or with any neighboring colonies, the apiarist should at once stop building up, or exchanging frames with any hives in the yard ; as in so doing frames of brood or honey may be taken from a colony just attacked, and thus spread the disease very rapidily. A single bee getting one load of honey from the diseased hive, will surely transmit the infection to the healthy colony when the work of brood-rearing is in progress.

If the disease should break out in a very few hives only, I would advise, by all means, the immediate destruction of the hives and contents, by burning them as soon as discovered. The boxes, stand-boards and everything pertaining to the hive at the time should also be burned. This is undoubtedly the only safe and sure remedy for the novice or inexperienced. In fact it would be the most available means of eradicating the disease with an experienced apiarist, when the infection is discovered before an exposure to the remaining colonies. but if healthy colonies have come in contact with the honey, pollen, propolis or wax of an infected hive the skillful or experienced apiarist can save his bees and honey by carefully adhering to the following mode of treatment; Remove the colonies to a close and darkened room. Shake the bees of each hive into an empty box that is new and clean. Let them remain there until they show signs of stupidity, when they will have consumed all the honey they carry with them. Now take the bees out of the box and put them into a new clean hive filled with foundation, feed them with sugar syrup, or honey that you know is not from a diseased hive : or, if it be in time of season when honey is coming in they will gather from the fields to supply their wants the same as a young swarm.

The honey may be extracted from the infected hive, but the utmost care must be taken not to expose a single drop of the honey, comb, or any part of the hive, where the bees can get it. The honey should be brought to a boiling heat and then sold to some manufacturer, so that it will not find its way back to the bees. Some writers claim that the wax also may be extracted and made into foundation. I have had no experience in this line, therefore cannot give positive advice ; but I should immediately burn the hives, frames, bottom-boards, boxes and everything pertaining to the infected hive.

My experience with foul-brood dates back to 1845. My largest experience, however, was between 1850 and 1860, when the disease raged through Montgomery county and eastern and central New York. Through the ignorance of a neighboring bee-keeper I had one or two cases in 1867. Since that date there have been no signs of foul-brood in either of my apiaries, neither has there been a case of this disease with any neighboring bee-keeper for the past 13 years to my knowledge.

Mr. House said further that the great danger was in leaving the diseased honey exposed where other bees could get at it. His experience had been much like that of Mr. Quinby. In the fall he had several dozen cells attacked. In the spring he would drive the bees out, provided the colony was strong enough. In his article he had put the worst side out, in order to put men on their guard.

F. H. Cyrenus said he would not burn a hive, or destroy all the comb. He would give the bees a new hive and clean cells. He would not be afraid to give them back the same honey after it had been scalded.

Mr. Betsinger asked if he would use any of the combs connected with the foul-brood colony.

Mr. Cyrenus said he would if the cells were empty, containing absolutely no honey or brood.

Mr. House said it was dangerous to use such combs.

Mr. Cyrenus said a man might have 50 valuable hives, which it would not do to burn. It would be better to scald the hives.

Mr. House said he had known an infected bottom-board to transmit the infection after it had been exposed during all of the winter months. There were two stages in the disease, the last proving fatal.

Mr. Rians said he had had experience with foul-brood. In one case there were but three cells, which he cut out with his knife. In the case of two other colonies where the disease had progressed too far, he destroyed the comb and extracted the honey. He made new colonies out of the old ones, and they were healthy. The honey which he had extracted, he boiled until it almost boiled over. He fed it out, and soon found ten or a dozen colonies affected. Where practicable he cut out the foul cells. In this way he reduced the disease, until now he had but 3 colonies affected. He was not aware that there were other hives in the neighborhood affected, and to which his bees had access.

Mr. Cyrenus said perhaps his bees got the infection elsewhere, and did not get it from the honey.

Mr. Bacon said 40 years ago he lost 60 colonies from foul-brood. Sometimes young bees died in the comb, and this was mistaken for foul-brood. He had had no foul-brood in 30 years.

Mr. House said in Mr. Rian's case his bees were not affected with genuine foul-brood. If not, it would have proved more destructive. He could detect foul-brood by the odor.

Dr. Marks said he had had foul-brood but had sold the bees. With other bees the disease disappeared without treatment.

Mr. Doolittle instanced a case of foul-brood where the bees all died. He once had 5 colonies diseased out of 14. He put these colonies in the cellar in the fall. In the spring he found that nearly all his bees had foul-brood, he believed because they had been wintered together. He let such bees as would, swarm, putting them in new hives. He kept the old hives for a year or so and then used them again. He did not believe hives would carry the contagion after having been exposed for a winter. He did believe the contagion would spread, by putting the bees together in the cellar.

Mr. House said the danger in this case was the honey the bees had taken from a diseased colony.

Mr. Betsinger said but very few persons knew what foul-brood was. It was a very dangerous disease, one of the most dangerous in the apiary. Foul-brood will present itself often in a very bad state, at times, and will become dormant of itself, and then burst forth again with all the destructiveness of small-pox. Foul-brood can never be cured. We do not know the cause. I have attempted to wipe it out and thought I had succeeded, but I had not. I know that any portion of honey, comb, or pollen affected with the contagion will transmit it. Dry combs would transmit it. He did not believe there was one apiary in a hundred that did not have foul-brood. Italian bees would drag out foul-brood. If a hive had foul-brood in the spring, it would have it again the next spring. Foul-brood was of but one kind, but it had different stages.

Mr. House said that one year of foul-brood would use up the colony. With Italian bees he had known it to break out again in the spring.

Mr. Betsinger said a bee-paper had stated that in case of foul-brood, if the bees were shaken off on foundation, the disease would be cured. Experience had proved that this was not true.

The president said the fact that foul-brood had prevailed before 1870, proved that it was liable to appear again. In 1869 in one of his apiaries, out of 100 colonies one was affected with foul-brood in the spring. In the fall all but 4 of the colonies had it, caused by the other bees robbing the affected brood. He did not think the plan recommended by Mr. Rians safe. If a hive has been or is diseased, he would proceed as Mr. House advises, putting them on new foundation. He believed freezing or scalding the hives would make them safe. He had also found it safe to feed the honey after it had been scalded. He would certainly not winter a diseased colony. His experience went to prove Mr. Cyrenus' statement in regard to combs. He had hung up combs during the winter where they were frozen hard. Used them again in the spring, and the disease disappeared. He should not, however, advise the use of combs in this way.

Mr. Betsinger said you can put it down as a fact: No honey, plenty of foul-brood; plenty of honey, no foul-brood. In 1869 the honey season was poor, and we had plenty of foul-brood. I lost 300 colonies that season. In 1870 the honey season was good, we had no foul-brood. Plenty of honey crowds out foul-brood.

The president to W. E. Clark—I do not think freezing honey would remove the contagion. Scald the honey and the hive. Freeze the comb.

Mr. Rians asked Mr. Betsinger his theory of honey crowding out foul-brood.

Mr. Betsinger said honey and foul-brood could not occupy the same space at the same time.

Mr. Doolittle said he should destroy a hive if only a single cell was affected. Where the cells were of a grayish color he did not believe the case to be genuine foul-brood, In the latter case, the cells were a stringy putrid mass. The dead bees would not be carried out. He offered the following:

Resolved, That this Convention believes that foul-brood is a very dangerous disease, and that we advise all to be careful in experimenting in regard to its cure. If but two or three colonies are affected in any apiary, destroy hives, combs, and all.

Mr. Betsinger spoke of a case where one-fourth of the entire apiary was made up of dead larvæ foul-brood. He Italianized the apiary, and the bees carried out the larvæ. The man had the same number of colonies to-day, not having lost a colony.

Mr. Doolittle said in case of foul-brood, the larvæ lay in the cell after being sealed. It assumed a brownish color, became salvy, and very offensive to the smell.

All agreed that this was a correct description of foul-brood.

The president said the colonies could be saved without destroying the hives and bees. If 50 or 100 colonies could be saved by any other method than destruction, he thought the same mode of treatment should hold good in the case of one or two colonies.

Mr. Doolittle said his advice was for the novice or inexperienced bee-keeper, and for experienced men as well. He thought it better to destroy two or three hives, than to run the risk of having any foul-brood in the future. In the case of 50 or 100 colonies the cost was too great. Mr. Doolittle's resolution was unanimously adopted.

Adjourned till 9 a.m.

MORNING SESSION.

By unanimous vote, Mr. T. G. Newman, of Chicago, editor of the AMERICAN BEE JOURNAL, was made an honorary member of the Association.

After the reading of the minutes of the previous day, and the reception of new members, the following committees were appointed:

On Prize Essays—Messrs. W. A. Clark, G. M. Doolittle and R. Bacon.

On Implements—Messrs. Cyrenius, Dines and W. V. Bosworth.

On Question Drawer—Messrs. J. L. Scofield, Doolittle and Betsinger.

By request, Mr. T. G. Newman read the first of the prize essays on "Wintering Bees," by Chas. Dadant, Hamilton, Ill. The next was written and read by the Secretary, who also read the essay of Rev. A. Salisbury, of Camargo, Ill.

[These essays and the discussion will be published hereafter.—ED.]

Adjourned to 1:30 p. m.

AFTERNOON SESSION.

Mr. J. J. Jones, of Trenton, was made an honorary member.

The election of officers for the ensuing year resulted as follows:

President—Dr. A. H. Marks; *Vice President*—G. M. Doolittle; *Secretary*—Geo. W. House; *Treasurer*—R. Bacon.

Utica was selected as the next place of meeting, and the last Wednesday in January as the time.

The retiring President, Mr. L. C. Root, then read his annual address, for which he was given a vote of thanks.

The committee on adulteration of honey reported the following:

Whereas, the adulteration of extracted honey is very largely practiced by unprincipled dealers and adulterators, and threatens to almost destroy the pursuit of honey production; and as a bill is now before the legislature of New York to prevent the adulteration of sugars, syrups and molasses, and as the adulterations of honey are just as detrimental to the public as they are to honey producers: therefore,

Resolved, That our president be directed to cummunicate with Mr. Root, member of the legislature from Rochester, N. Y., having the bill in charge, and that he present these resolutions and use his influence with that gentleman to have honey included in that bill before it is put upon its final passage, and that all kee-keepers in this state who have any influence with members of the legislature, are requested to write them at once and ask their influence in favor of the bill.

Resolutions unanimously adopted.

MARKETING HONEY.

The secretary read an essay on the subject of marketing honey. written by C. P. Dadant, of Hamilton, Ills.

J. H. Nellis read an essay on the same subject, written by L. M. Wainwright, of Noblesville, Ind.

The Secretary, George W. House, read his article on the same subject.

T. G. Newnan, of Chicago, spoke on the subject. It was one of the most important known to bee-keepers. A mistake of one cent per pound on the price of honey is a mistake of $750,000 on the annual production of the honey crop of the United States. Comb honey must be made attractive, Honey is a good medicine. We must make this known. He made a pleasant speech which put the convention in good humor. In reply to a question from Mr. Bacon, the speaker said glucose was made in Chicago very largely, and was used in adulterating everything eatable that could be adulterated by it. Glucose is driving honey out of the market, and bee-keepers must protect themselves. Illinois glucose makers are opposing the efforts of the bee-keepers, by corrupting the members of the legislature; the same thing may be done in New York. Did you ever stop to think that you can buy the finest golden drips and silver drips syrups for less money than the commonest molasses that is pure is worth? The explanation is "glucose." The association, in order to secure the passage of the anti-adulteration bill, should send a representative to Albany armed with the signatures of its members, Glucose is the essence of rags and refuse matter from cities, worked up with corn syrup.

J. H. Nellis said just as soon as honey sold for the same price as canned sweets, the market would never be overstocked. He spoke also on the glucose question, and said the use of glucose was detrimental to health, and should be prohibited. Honey cannot be produced and compete with dishonest sweets which can be made at 3 cents a pound. He offered the following:

To the legislature of the state of New York: The bearer, L. C. Root, is hereby appointed a committee to wait upon your honorable body for the purpose of petitioning that the bill against the adulteration of cane sweets be revised to include upon the same the most delicious of all sweets, honey. We would also urge upon your attention the great necessity of rigid legislation to suppress the wholesale adulteration of all sweets, which not only ruins the prospects of legitimate business, but which is destructive to the health of the consumers.

The resolution was adopted.

Mr. Nellis moved that the association pay Mr. Root's expenses to Albany to favor the anti-adulteration bill.

Mr. Bacon moved that Mr. Nellis act as alternate. Appointed.

Adjourned till 7 p. m.

EVENING SESSION.

At the opening of the evening session the following telegram from D. A. Jones, at Beeton, Ont., was read:

"My eyes are no better, and I cannot send the essay. My bees are wintering finely; the holy bees the best. Accept my congratulations."

Essays on the subject of "Apiarian supplies and the queen trade," written by A. B. Weed, of Detroit, and the "Great Revolution," written by A. Webster, of East Roxbury, were read by the secretary.

Vice President Doolittle presided, the president, Dr. Marks, having been called home.

Mr. Betsinger asked: "What constitutes an average yield of honey, both comb and extracted, in the United States and Canadas east of the Rocky mountains." Some say they have had a good season, 40 pounds to the colony; others say they have had a good season, 25 pounds to the colony; others say they have had a poor season, 100 pounds to the colony. What he desired was to fix the standard yield. The question was important as showing the entire yield of the country.

Mr. Newman questioned Mr. Betsinger, who replied that about 50 lbs. comb honey and 80 lbs. extracted honey per colony was a standard yield, in his opinion. If this association did not fix the standard, no other association would.

Mr. Root said each bee-keeper would have a standard of his own.

Mr. Newman was glad the subject had been brought up, although it would be hard to settle.

The president said the Association had adopted a standard for a colony of bees, but the action amounted to nothing.

Mr. Root said the papers reported in some states half a crop, in others an average yield, etc. The question was, what did the papers judge from in making an estimate?

Mr. Bacon said the yield in Kentucky could not be compared with New York, or New York with Canada.

Mr. Newman said he had stated in the national convention that the yield for 1880 throughout the United States, was but a half a crop. He had, by patient toil, arrived at this conclusion. It was well known that he had called for reports of his subscribers in the different states, and many hundreds of these reports he had summarized, in order to arrive at his conclusion.

Mr. Bacon said he had looked around in his vicinity, and concluded he had but one-third of a crop, and had so reported to Mr. Newman. But late in August and early in September his bees worked very hard, gathering honey from seladine. He found that Mr. Root had a better yield than he, even with selandine.

Mr. Newman said he could not judge by the opinion of bee-keepers whether their yields were good or bad, except by the number of pounds per colony.

W. E. Clark moved that in future the question drawer be opened on the afternoon of the second day, instead of the third day; carried.

An adjournment was then taken for the exhibttion of aparian supplies, after which adjourned to 9 a. m.

[The third days' proceedings will be given next week.—ED.]

Books for Bee-Keepers.

Cook's Manual of the Apiary.—Entirely re-written, greatly enlarged and elegantly illustrated, and is fully up with the times on every conceivable subject that interests the apiarist. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, **$1.25**; paper covers, **$1.00**, postpaid. Per dozen, by express, cloth, $12.; paper, $9.50.

Quinby's New Bee-Keeping, by L. C. Root.—The author has treated the subject of bee-keeping in a manner that cannot fail to interest all. Its style is plain and forcible, making all its readers sensible of the fact that the author is really the master of the subject. Price, **$1.50.**

Novice's A B C of Bee-Culture, by A. I. Root. This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, **$1.25**; paper, **$1.00.**

King's Bee-Keepers' Text-Book, by A. J. King.—This edition is revised and brought down to the present time. Cloth, **$1.00**; paper, **75c.**

Langstroth on the Hive and Honey Bee. This is a standard scientific work. Price, **$2.00.**

Blessed Bees, by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, **$1.00.**

Bee-Culture; or Successful Management of the Apiary, by Thomas G. Newman.—This pamphlet embraces the following subjects: The Location of the Apiary—Honey Plants—Queen Rearing—Feeding—Swarming—Dividing—Transferring—Italianizing—Introducing Queens—Extracting—Quieting and Handling Bees—The Newest Method of Preparing Honey for Market, etc. It is published in **English** and **German.** Price for either edition, **40 cents,** postpaid, or $3.00 per dozen.

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The Dzierzon Theory;—presents the fundamental principles of bee-culture, and furnishes a condensed statement of the facts and arguments by which they are demonstrated. Price, **15 cents.**

Honey, as Food and Medicine, by Thomas G. Newman.—This is a pamphlet of 24 pages, discoursing upon the Ancient History of Bees and Honey; the nature, quality, sources, and preparation of Honey for the Market; Honey as an article of food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, &c.; and Honey as Medicine, followed by many useful Recipes. It is intended for consumers, and should be scattered by thousands all over the country, and thus assist in creating a demand for honey. Published in **English** and **German.** Price for either edition, **6c.**; per dozen, **50c.**

Wintering Bees.—This pamphlet contains all the Prize Essays on this important subject, that were read before the Centennial Bee-Keepers' Association. The Prize—$25 in gold—was awarded to Prof. Cook's Essay, which is given in full. Price, **10c.**

Bees and their Management. This pamphlet was issued by the Italian Bee Company, and has had a large circulation. The price has been reduced from 20 cents to **10 cents.**

The Hive I Use—Being a description of the hive used by G. M. Doolittle. Price, **5c.**

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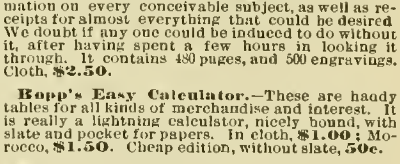

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☞ "What is the meaning of 'Dec. 81' after my name on the direction-label of my paper?" This question has been asked by several, and to save answering each one, let us here say: It means that you have paid for the full year, or until "Dec. 31, 1881." "June 81" means that the first half of the year is paid for, up to "July 1st." Any other month, the same.

☞ It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

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☞ Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

☞ At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

☞ We will send sample copies to any who feel disposed to make up clubs for 1881. There are persons keeping bees in every neighborhood who would be benefitted by reading the JOURNAL, and by using a little of the personal influence possessed by almost every one, a club can be gotten up in every neighborhood in America. Farmers have had large crops, high prices, and a good demand for all the products of the farm, therefore can well afford to add the BEE JOURNAL to their list of papers for 1881.

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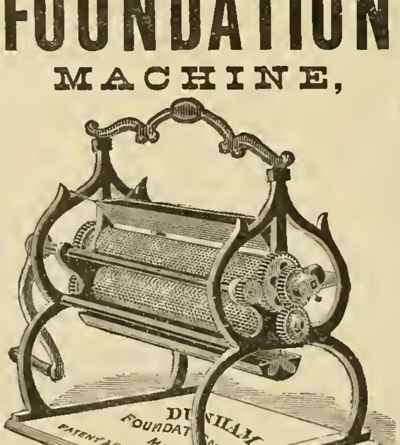

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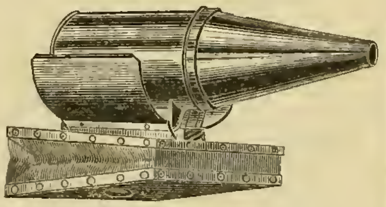

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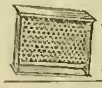

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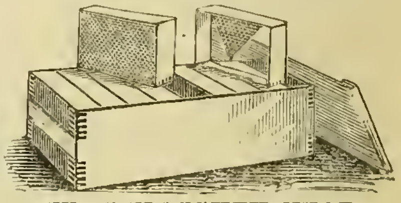

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ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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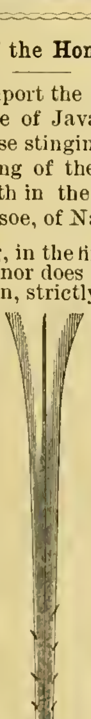
CORRESPONDENCE.

Sting of the Honey Bee.

Before we import the stingless bees, or the great bee of Java, *Apis dorsata*, with its immense stinging power, let us consider the sting of the bees we now have, as set forth in the following article by Mr. Bledsoe, of Natches, Miss.:

The bee sting, in the first place, is not a perfect tube, nor does it work with a telescope motion, strictly speaking. It is a complex instrument, being composed of three distinct parts, of which the sheath forms one. These three parts join near the edges, and form a tube which, viewed sectionally, has the shape of a triangle, the angles being rounded off.

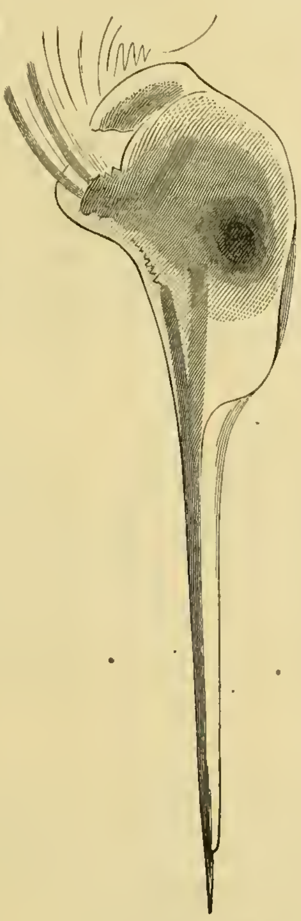


Bee Sting magnified, showing the barbs.

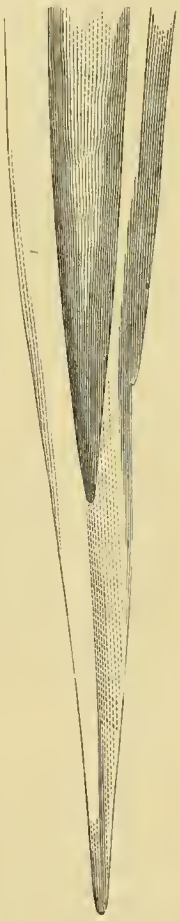
The sheath near its point is narrow, but grows wider towards its base, where it gradually embraces the remaining parts, thereby keeping them in place in their working. Near each edge of the inner or hollow side of the sheath, runs a ridge which fits a corresponding groove in each of the other parts. Near its point, which is rounded rather bluntly, it is armed with two feeble sets of barbs, numbering as many as four in each set.

THE STING OF THE HONEY BEE,

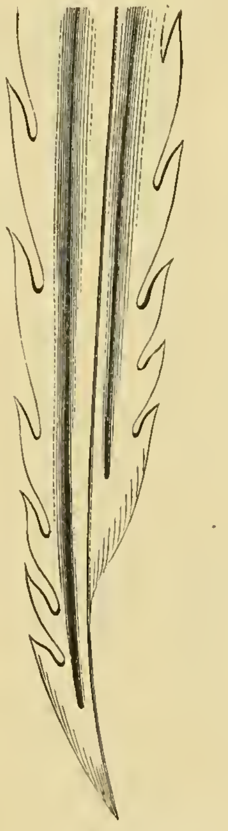
VERY HIGHLY MAGNIFIED.



The whole Bee Sting, magnified.



Point of Sting, highly magnified.



Point of Sting, showing barbs.

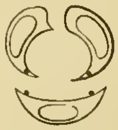
The base of the sheath or sting is large, being broad and somewhat flattened, with an oblong hollow, which constitutes a receptacle for the poison just previous to injection in the wound.

The other two parts constitute the sting proper, and in a sectional view are semi-circular, the upper edges being thicker than the lower ones, and squared to each other, one of the edges having a projection extending along the under or inner portion of it, thereby forming a rabbet along which the opposite part freely moves. The under or inner edge of each of these parts tapers down to extreme thinness, while near the termination of the edge there runs a minute groove which corresponds with the ridge mentioned in the description of the sheath, and along which the parts move freely. Each of these parts proper tapers down to an exceedingly fine point. Near the point begin the barbs, which in some stings number as many as ten, extending along the sting nearly one-half its length, and are well-defined.

The parts are of a horny consistency, of a deep red color, and transparent, they are also hollow along the greater portion of their length, intended perhaps to combine lightness and strength.

The two chief parts at the base of the sting gradually assume a nearly round and tubular form, each terminating beyond the base of the sting within the body of the bee, and has an arm attached to it at right angles which forms a part of the muscular mechanism by which their movement is effected.

Also, to each of the chief parts, and located in the cavity formed at the base of the sheath, is attached a plano-convex valve, the convexity of which is adapted to the inner side of this receptacle, and they occupy about one-half of the space therein. When the sting is in action, each of the chief parts is thrust out and withdrawn alternately; so that when working its way into a wound, the valves by their action force out the poison which fills the cavity, and which is received from a sac situated apart from the base of the sting. The poison readily passes along the tube (which is a continuation of the cavity), and finds its way into the wound with great facility, owing to the peculiar formation of the sting.



Sectional View of a Bee Sting.

It may often happen that one or both of the chief parts of the sting are left in the wound when the sheath is withdrawn, but are rarely perceived on acacount of their minuteness, the person stung at the same time congratulating himself at the same time that the sting has been extracted.

* * *

For the American Bee Journal.

A Scrap of History on Importing Bees.

C. J. ROBINSON.

When the AMERICAN BEE JOURNAL was first published in Philadelphia by A. M. Spangler & Co., I commenced to scan its 24 pages, but have not been a constant reader ever since its first issue, January, 1861. I have not seen a historical account of the introduction of the Lignrian or Italian Alps Bees into this country, published in the said Journal. Statements by several writers have appeared in different periodicals concerning the first introduction of the Oriental bees, but the several stories do not agree as to date, incidents, nor as to who was the first successful importer. A correspondent of the *New England Homestead* claimed that Mr. Cary, Coleraine, Mass., took charge of the first Italian bees ever imported that were made to live, and that "Mr. Parsons, of Flushing, Long Island," was the importer, and gives the date of the first importation in 1860. If the reader will refer to the first numbers of the AMERICAN BEE JOURNAL he will learn from Mr. P. J. Mahan's advertisement that he, Mr. Mahan, was the first to land the Italian bees on the American continent in September, 1859. Other parties who imported bees advertised in the AMERICAN BEE JOURNAL at the same time, but none of them disputed Mr. Mahan's claim except Mr. Wm. Rose, of N. Y. City, who contradicted a statement I had made in an article in the *Country Gentleman*, crediting Mr. H. with the honor of being the first successful importer of bees. In a subsequent communication from Mr. Rose, published in the *Country Gentleman*, he admitted that he was not aware that Mr. H. brought over bees at the same time of the Government importation of Italian bees. Believing that many readers of the AMERICAN BEE JOURNAL would like to learn the history of the introduction of the so-called Italian bees into this country, I will, providing ye editor allows, briefly narrate the facts and circumstances of the earliest importations. It was in 1853 that the Alps bees were introduced into Germany. Madame de Padua, of Mira, Italy, wrote to the the celebrated Rev. Mr. Dzierzon, who resided in Lower Sileria, for a model of his bee hives, and she sent him a colony of the yellow-barred race of bees, which were the first ever seen in that part of Europe. (The Italian hives were about 4 feet long by 1 foot broad and deep, composed of half inch boards, and one end entirely open for the entrance.

In 1856 Mr. Samuel Wagner, of York, Pa., attempted to import a few colonies of Italian bees, but they all perished on the voyage. Mr. Langstroth was in error when he wrote in his book that "Mr. Wagner and Mr. Richard Colvin, of Baltimore, imported bees in 1859." It was in 1860 when Messrs. Wagner and Colvin first succeeded in importing the yellow-barred bees, and they were from Mr. Dzierzon's apiary.

The history of the first successful importation of those yellow bees into this country dates back to the summer of 1859, when our Government was petitioned, by a bill introduced in Congress, to import camels and Cashmere goats for domestication in the South. At that time Mr. P. J. Mahan solicited an order from the then Commissioner of the U. S. Patent Office, to purchase a few colonies of the European bees for the Department of Agriculture (then under the jurisdiction of the said Commissioner), and thus get that breed of honey bees introduced into this country by the fostering aid of our government. Mr. Mahan was not a throne "stalwart," and his petition was denied. Just at that time the said Commissioner sent Mr. T. B. Parsons, of Flushing, N. Y., who was a botanist and nurseryman, on a professional tour through Europe for the purpose of making a report to said Department. (See its report for 1860 or 1861). Mr. Parsons was not an apiarist, but the Commissioner authorized him to purchase ten colonies of Italian bees on government account. Mr. Mahan proceeded to import bees on his own account, and visited Europe with a view of purchasing a few colonies of Dr. Dzierzon, and attending to them during the whole voyage. Mr. Parsons reported that he experienced dangerous difficulties in making his tour through Italy, as war was then going on, but he claimed to have purchased ten colonies on his government order, and ten colonies on his individual account. The sequel to this enterprise clearly indicates the character of public servants—service and jobbery. Thus the bees purchased by Mr. Parsons were all shipped on board the same vessel with the bees purchased by Mr. Mahan, who attended to all of the bees during their voyage across the Atlantic. When the ship arrived in the N. Y. harbor a strife sprung up, as is usual, between the parties of New York and the Philadelphians, the New York party being anxious to gain the honor of priority, and the Philadelphians ambitious to secure the same honor.

Both parties endeavored by stratagem, to win their point, and a hive of the Parsons bees was put into the hands of a stout stalwart New Yorker, and a hive of Mahan's bees were put into the hands of a strong active Philadelphian. The point was to get priority of landing those bees on American soil. Well, when the boat from the steamer neared the dock, the New Yorker swung and threw the hive of Parson's bees on to the wharf, where it was smashed by the collision, and so won; as the boat touched, the Philadelphian ran with the bees he had in charge and placed them safely on land. Thus Mr. Mahan was the *quastatore* or pioneer importer of Italian bees into America.

Now the reader is wanting to know what became of the bees purchased for and with the government funds. Well, Parsons claimed and took all of the colonies that survived the voyage. Of course it was the Government's bees that died *en route*.

Mr. Mahan got information that the bees purchased by Parsons cost our government $1,800, but when I quizzed the Commissioner on that matter, he said the cost was not one-half that amount, and he seemed to be entirely satisfied with the case as it stood.

At some future time I may write you more on this subject.

Richford, N. Y., Jan. 23, 1881.

For the American Bee Journal.

The Price of Success.

WM. F. CLARKE.

Success is always more or less costly. The example of a successful man always fires the ambition of others, but few count the cost of success. Just now, we have, here in Canada, a large number of persons who aspire to be Joneses in the line of bee-keeping, and the mischief is, they fancy they can do it all at once. They forget that this man has kept bees from boyhood; that he has laboriously and slowly plodded his way up to his present eminence; and that it is only quite recently that he has attained distinguished success. There is no magic or charm about bee-keeping. The "mysteries" are open secrets. But there is a certain knack; a species of apicultural talent, a genius or ability, resulting from a combination of natural qualities and long experience, which makes one man succeed where others fail. It is thus in every walk of life. Statistics prove that only one merchant in 27 succeeds in trade. Girards and Stewarts are mighty scarce in the haunts of commerce; quite as much so as Grimms and Hetheringtons are in the realm of apiculture. There are numerous instances of failure in every line of human occupation. The man who wins success, does so by dint of those faculties and methods which command it. Bee-keeping is no exception to this general rule. There is no royal road to apiarian success: rather there is only the royal road, which is paved with intelligence, patience, and resolute determination.

Listowell, Ont., Feb. 15, 1881.

SELECTIONS FROM OUR LETTER BOX

Queen Rearing.—I see, on page 35 of the weekly Bee Journal, that Mr. W. Z. Hutchinson states that he has "made $25 per colony this season rearing dollar queens." He then says, "let us hear from breeders of high-priced queens, if they have made more." It would be interesting, I think, to the readers of the Journal, to know how many colonies were made to yield this amount; as it would go to show how many can be made to yield so large a profit when under the care of one man. Mr. Hutchinson does not state whether or not the time of the nuclei is counted, in which the young queens must have been reared and kept until sold. My own aim has always been to sell that which was thoroughly tested and I knew to be good, rather than that which is low priced and doubtful. If Mr. H. can show that $25 per colony can be made from an unlimited number of colonies, then he will certainly be acknowledged as the most successful of bee-keepers.

Detroit, Mich. A. B. Weed.

The Shaking-Off Process.—In answer to your request in the Weekly of the 9th inst. we would say, that the article referred to is to be found on page 255, instead of 355, 1879, under the heading, "Management during June." As it would only take time and space to repeat Mr. Doolittle's plan in detail (for this would be the best we could do) we will only say that by the shaking-off process we mean the artificial increase of one swarm from every two old colonies, by shaking the bees from the combs of the first hive, and placing these combs with a new queen on the stand of the second, this latter being removed to a new location. We have been successful to a great measure in handling bees in this way, and can recommend it as worthy of trial. Like many others, we, too, can help swell the chorus in favor of the young Weekly. At first it did not seem to fill the place of the attractive appearance and convenient shape of the old monthly; but after a month's trial we find the weekly visits amply compensate for all deficiencies in other respects, especially since the new feature of its being cut and pasted made its appearance. The Weekly deserves the support of all bee-keepers. Our bees had a joyful time last week. Since the first part of November they had been confined to their hives without interruption, and we feared bad results; but the way they made the air buzz on Wednesday last, and their present condition, does not indicate anything very serious as yet. Of the 82 colonies at our home apiary, we have lost so far but 1; the rest seemed to be all right. We winter on summer stands, and use a 4-inch chaff cushion for protection on top, contracting the brood-chamber with chaff division boards. Greiner Bros.

Naples, N. Y., Feb. 14, 1881.

[The explanation above referred to is in answer to an inquiry from Mr. C. Wurster, in the Weekly Bee Journal of Feb. 9th. Messrs. Greiner Bros. will accept our thanks, as also congratulations on the happy condition of the bees in their home apiary.—Ed.]

Referring to the article of Messrs. Greiner Bros., "Prevention of Swarming," in American Bee Journal of Jan. 19, 1881, I would like to inquire: 1. What is the "shaking-off process"? 2. Does it mean the reduction of the number of bees of a colony likely to swarm by shaking them off of the frames, adding them to a nucleus or weak colony? 3. If so, how is best to guard against shaking the queen off into the hive of the weak colony? I so far find it a tedious job to find the queens.

Beginner.

Grand Island, Neb., Feb. 7, 1881.

[The process referred to is described above. It will be economy to Italianize your bees, if for no other purpose than convenience in finding queens.—Ed.]

Had a Good Flight.—We had a thaw during last week, with fogs, mist, and a heavy rain on the 12th, which carried off most of the snow in a flood. Friday, the 11th, was clear and warm—a fine day for the bees to fly, and they improved it, too; every colony, and 4 that were nothing but strong nuclei last fall, carried out a good many dead bees during the day; but there are many live ones left yet. They appear all right. This is the first flight since about the middle of November. R. Downs.

Naugatuck, Conn., Feb. 15, 1881.

Bees doing Well.—I started to winter 30 colonies, all in chaff hives, and have 27 remaining at this date. Of those which I have lost, 2 starved and the other was diseased, I think. The percentage of loss among bee-keepers in this section has been even less than mine, where chaff hives were used; in single-walled hives it has been greater, with a prospect of more loss. The recent heavy thaw has enabled my bees to take a good fly. They came out largely for 3 days in succession, and but few were lost. I am much pleased with the Weekly Journal. C. M. Bean.

McGrawville, N. Y., Feb. 14, 1881.

Bees—Present Condition.—In looking over 43 colonies to-day (all the hives at the home apiary) I find them as follows: 4 dead, 6 weak, 12 fair, 13 prime, 8 extra, and 7 with a little brood. Doubtless more had brood, but I did not see any more in the sweepings of the bottom boards. Fair, prime and extra are my marks for good, better, best.

H. T. Collins.

Jacksonville, Ill., Feb. 8, 1881.

The Dying and the Dead.—Many bees have been lost hereabouts by the severity of the winter following a season of very scant supply of honey in the flowers. I increased to 25 from 8 colonies, and although I fed a barrel of honey in the autumn, 10 are now dead. All are out-doors. J. T. Scofield.

Barnesville, O.

Bees all Alive.—The thermometer indicates 15° below zero this morning—the coldest we have had this winter. My bees are all alive yet. The bottom boards of my Quinby chaff hives are dry. I am in good hopes for the future.

W. Bolling.

Dunkirk, N. Y., Feb. 3, 1881.

The Season in Florida.—On Dec. 28, I left home for a trip through Florida, where I saw many things that were new and interesting. Florida is a country peculiar to itself. There is no other like it. The morning I left Charleston, Dec. 30, the thermometer stood at 12° above zero, and when next day, I entered the northern part of Florida, I found the oranges all frozen, and grave fears entertained for the trees, many of which were killed. About Gainesville the orange trees shed their leaves, and the lemon trees were mostly killed. At Ocala, I found the orange trees unhurt, but in many places the lemon trees were killed, and the lime and guava trees at Gainesville were killed. From Ocala south, as far as Fort Mead and Tampa, the orange trees looked lovely. At Fort Mead and Tampa not only the lemon, but the lime and guava were in fruit and in bloom at the same time. Tomatoes were in bloom and had ripe fruit, of which I ate. Think of this, Mr. Editor, while you were many degrees below zero.

J. W. Hudson, M. D.

Mayesville, Fla., Feb. 6, 1881.

Bees Leaving their Hives.—I must confess that I am very much pleased with the Weekly Bee Journal, and read each number carefully. Success to it and its editor. Will some one inform me why my bees persist in coming out of their hives when the weather is so cold? Yesterday was a bright sunshiny day, but very cold all day, yet my bees came out in great numbers, never to return to their hives, as the weather was so cold they would drop in the snow and perish. I put my bees into winter quarters the first of November, using chaff division boards made after Mr. A. I. Root's plan. For the top or cover of my hives (after reducing the number of frames to 5 or 6) I tacked heavy cloth on the bottom of the cap or upper story, then laid three sticks on top of the frames in the hives, and put the cap or upper story on, filling it with oats chaff, and being careful to tuck it down tight around the edges. The bees do not show any signs of dysentery as I can see. They have not had a flight since I packed them for winter.

F. H. Seares.

Girard, Pa., Feb. 4, 1881.

[Your bees are uneasy from long confinement, and were lured out by the bright sunshine. In similar cases it is a good plan to shade the fronts of the hives with slanting boards.—Ed.]

"Cut and Paste."—That's the style; get down to it as soon as your usual energy can clear the way. From 40 stands at the setting out time in April, down to 24 by the middle of May, then up again to 54, with about 1000 lbs. of surplus, in 1 lb. sections, is the story of the of the writer's apicultural experiences for 1880. Bees in the cellar apparently are doing well, save a few uneasy and affected with dysentery. The temperature is from 30 to 40° indoors, during the past 3 months; while outside it has ranged from freezing to 38° below zero. There are fewer bees on the cellar floor than common during warmer winters. Not a day has been warm enough for bees to fly since the middle of last November. Success to the Weekly. Remember the closing cadence, "cut and paste.". Geo. L. Scott.

Wadena, Iowa, Feb. 15, 1881.

Packed in Chaff. — Hurrah for chaff packing! It saved our bees and we feel safe now to whistle pretty loud. We had a general thaw, some warm, calm weather, afording the bees a good flght, and us a chance to examine them. We found them all in good condition, a few wanting additional food, which we supplied, and several had a little dysentery. There was not a mouldy comb among the lot. Brood in all stages of development was found in a number of hives; in fact, in all the centre combs there were some. Do bees need water and pollen to rear brood? We doubt it. Being confined over 3 months where could they have got the water? In the fall, after all vegetation was dead, we took up 7 colonies, (given us by a neighbor who would have brimstoned them), we made 2 of the 7, gave them empty frames and fed a little honey, and the rest, enough of sugar to see them thro' the winter. These 7 made 2 strong colonies, and they have considerable brood started, but have had neither water nor pollen except what was contained in the food furnished them, which leads us to believe that they do not require either water or pollen until the warm weather of summer. Those who left their bees unprotected in this vicinity are losing many. One person near us lost 11 out of 13, another 7 out of 20, and all around we hear of losses.

W. H. Stout,
Pine Grove, Pa., Feb. 13, 1881.

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94 Days.—It is 94 days since my bees have had a fly, and to-day is the worst of any, for it is snowing with a gale of wind from the N. E. My hives are out of sight under the snow. My bees are well protected with boxes packed with chaff and straw, but the fall honey was so poor that, unless they have a fly soon, they will suffer badly. I will venture to say that one-half the bees wintered on summer stands in this section (northern Ill.) will go to bee heaven before next May. I see, on page 28 of the weekly Journal, you advise to plant basswood seed in drills. Please inform me when to gather the seed, and when to plant, whether in spring or fall. I have tried it various ways, but never succeeded in a single instance in making them grow, and am very anxious to set 300 or 400 of the trees around my lots. for shade as well as honey. I think your article on adulteration the best I ever read, and I have read it to a great many people of our town, and they all pronounce it good. I don't think there is much danger of over-stocking in this part of the country, unless we can devise some better mode of wintering, for one winter they do well in the cellar, and next on summer stands. and vice versa. If my bees all die I shall get another colony if I have to sell the cow to get it, and the Journal.

D. L. Whitney.
Rockton, Ill., Feb. 12, 1881.

[Gather the basswood seed as soon as ripened, either after or just before falling from the trees. In spring soak well in tepid water, then plant in drills 3 or 4 inches apart. When 1 year old, transplant into a sandy loam soil, if possible. Keep partially shaded till well developed, as the young plants will not stand much exposure to sun or drouth.—Ed.]

Bees in Northern Michigan.—The many reports of a poor season last year, in different parts, may show that this northern country is not such a poor place to keep bees as many may suppose. We are having pretty cold weather now; the mercury going down to 20° below zero on the 2d inst., which, by the way, is the coldest we have had; at the present time it is 17° below, but no wind with it, or we should feel it pretty sharp. There is plenty of snow; about 3 feet in the roads on a level. Two years ago I started with the American Bee Journal (which no man who keeps bees ought to do without, especially the Weekly), and one colony of bees, and increased to three; the next year I increased them to 11, using all the Dunham foundation they would work, and rearing my queens all in June, excepting one bought of Alfred H. Newman, which I successfully introduced. I think they have plenty of honey to winter on; they are packed in chaff on their summer stands with snow enough around them to help keep out the frost. We generally have snow enough for that purpose every year, so that the ground never freezes, the soil being sandy and clay loam the water works away as fast as it thaws, and we are never troubled with mud or water in the hives. We had honey from the willows and soft maples about the 1st of April last, then followed hard maple and an immense crop of fruit blossom honey, so much that I had to extract to make room for the queen in one hive, and although white clover blossomed profusely yet we received no honey from it. We had a fair crop of Alsike, an abundance from wild raspberry and blackberry; basswood yielded fair and buckwheat gave a big yield. I increased as much as I could, not expecting to get much honey to sell; 200 lbs. of extracted honey being all I had.

H. K. Beecham.
Acme, Mich., Feb. 4, 1881.

Deep Snow.—My bees are all on the summer stands, not having a flight this winter; they seem to be all right, but the snow is so deep that it is difficult to keep the hives from being buried in it. My straw hives I think will take the prize again this winter.

H. Klosterman.
Shawano, Wis., Feb. 12, 1881.

Report Your Losses.—My bees did poorly last season. I have 60 colonies packed in chaff. 40 of these were very strong when I put them away for winter; but I very much fear that the long severe winter will destroy all that I have. I will report when I take them to their summer stands, if it ever gets warm enough to take them there. I suggest that the name given to the Holy Land bees, be *Palestine* bees. I think it much more euphonious than "Holy bees." What say you, bee-keepers? I hope the readers of the Bee Journal will make brief reports for its columns. Let us know the worst "though the heavens fall."

J. R. Baker.
Keithsburg, Ill., Jan. 9. 1831.

Letter from Australia.—The American Bee Journal is full of most useful and interesting information. Its correspondents are evidently experienced and astute observers, and I have much pleasure in giving testimony to the excellence and variety of matter, all tending to make bee-keeping a popular and practical science, which appear in its columns.

S. McDonnell.
Sydney, Australia.

Cutting Bee-Gums.—I have found a bee-tree—a large basswood. I wish to save the bees, when is the best time to cut it? Give general directions.

Belleville, Ont. A. B.

[The best time will be in early spring, just after honey-flow sets in and before the combs are filled with brood. Fall the tree in the direction of the entrance, which is done by chopping the tree nearly off on that side first. When it begins to swing, a few strokes on the other side will lay it in the position you want it. Now chop (or saw) above and below the bees, and your "gum" is ready for transportation. If, however, the tree should break, in falling, right where the bees are located (which frequently happens), then save and transfer all the combs you can into frames, and get the queen and bees into a hive, which you should have provided in advance.—Ed.]

Give us all the Facts.—Your issue of Jan. 26 reached us on Feb. 2. We gave an audible smile when we were informed, on page 28, that the weather is milder. Our weather has not let up enough to thaw for a month, and now our thermometer, the first days of February, ranges at about 18° below zero, with the thinnest kind of a north wind. While at work in our shop we have to feed our stove constantly and work lively to keep off the effects of Jack Frost. We have enjoyed eighty days of excellent sleighing. We think if the present weather continues. the chaff hive advocates will have a winter severe enough to test their plan of wintering. We notice several reports of losses, and we hope hereafter each person will state how their bees were wintered, in chaff or in the cellar, or without protection. We winter in the cellar, and think it the very best plan. We have a few swarms packed in chaff, and we have wished them in the cellar several times during this extreme winter we are having, and are very solicitous about their comfort and final condition. We are therefore anxious to hear how others are wintering when packed in like manner. Bee-keepers, as a rule, are peculiar in their statements of success and failure. A good season that ensures plenty of new swarms and a bountiful harvest, makes him feel very important, and his great success is spread far and near. But should he lose 25 per cent. of his bees in wintering, he is very quiet about mentioning it. In fact, ten chances to one he does not mention it at all. The farmer that loses a few sheep or a few cows, thinks it no disgrace, and makes no concealment of the fact, but discusses the causes of his loss with his neighbors and tries to avoid disaster in the future. The bee-keeper has one advantage over the farmer; while the farmer has nothing to show after his loss, the bee-keeper has his empty hives, and they are placed carefully in their usual position upon their summer stands, and no one would suspect loss unless an examination is commenced. Then if the bee-keeper is finally cornered, his loss is *about* so many. *About* means anywhere from 5 to 20, and he will not talk freely about it until the next fall. Knowing these peculiarities of bee-keepers (we are one of them), we want full and straight reports. We will promise such a one on our part, and hope others will not be ashamed of their failures as well as their successes.

J. H. Martin.
Hartford, N. Y., Feb. 3, 1881.

Width of Sections.—Are not 1½ inches about the proper thickness for section boxes, where no separators are used?

2. Are they not more liable to build the combs straighter than if they were thicker?

3. Can there not be more honey obtained without the separators than with them; and if so, what per cent.?

A. J. F.
East Liverpool, O., Feb. 14, 1881.

[1. No; we would use them 2 inches.

2. No; if you use starters.

3. There will, of course, be the addition of as much honey in each section as would be taken up in space for the separators. We do not think the separators make any perceptible difference in the amount of honey gathered.—Ed.]

Bees in Georgia.—My bees went into winter quarters with but little honey, and some of them have perished on account of the weather being too cold to feed them. I am feeding some weak colonies now, hoping the weather will soon break, so that they can get a living for themselves. My bees stopped brood rearing very early in the fall and have not yet begun again. Last year, brood rearing continued every month during the year. We are not troubled here about wintering; we leave our colonies out unprotected all winter. I think of stimulating soon, so as to encourage brood rearing. Peaches bloom by the 1st of March; then our bees can live without feeding. I am the only man in this locality that has the movable frame hive, and I have the only station bees in the county. I have 30 colonies, 28 being Italians. I find comb foundation a great help, and shall send 50 lbs. of wax to be made into Dunham foundation. I am proud to see the Weekly Journal come in. I read every word in it as soon as I get it. Success to it.

H. M. Williams, M. D.
Bowden, Ga., Feb. 14, 1881.

Wintered in a Cave.—I have 35 colonies of bees, 10 in Root's chaff hives, and the balance in simplicity hives. I shall get about as many more, and want to make a lot of hives, but am undecided which kind to make. I have my simplicities all packed in good boxes, and all appear to be wintering well, although we have had an unusually cold winter; thermometer has been as low as 28° below zero, and has remained below zero for 10 days at a time. I like the simplicities for summer, as they are more convenient to handle, but which is best to make, chaff hives or the others, and pack in boxes, I have not been able to decide. In the winter of 1879-80, I had nine, all in simplicity hives, and made a cave on the top of the ground with ventilating tubes, &c. I put 51 in and took out 22 alive, and only 15 of these were able to give me any surplus. I obtained about 1000 lbs. from 15 colonies and their increase to 35 by natural swarming and dividing. I think I am in a good location here for bees, and near a good market, Des Moines, only 8 miles distant. I obtained 18 and 20 cts. for comb and 15 to 20 cts. for extracted honey. I have plenty of linn, white clover, sumac and Simpson honey plant growing wild here. I am well pleased with the Weekly Bee Journal.

Milo Smith.
Greenwood, Polk Co., Iowa.

Placing Sections Crosswise.—Will bees work as readily in the sections where they are put on crosswise of the brood-frames?

Peter Billing.
Pawnee, Neb., Feb. 10, 1880.

[We think it makes but little difference, so long as the usual space is left between the tops of the brood frames and the sections.—Ed.]

Feeding Candy.—My 25 colonies of bees had a flight on January 30, and Feb 10, but to-day is very cold. I am feeding candy made of granulated sugar and flour, laid on the frames under the quilt. I use the Langstroth hive. I have had a few for 15 years, but never knew the value of a movable frame until I took your Journal, and now I read every thing I can get on bee culture, and am much pleased with the Weekly. The last 5 years were poor honey seasons; our honey crop here is from white clover, there being no basswood, poplar nor golden rods near. I intend to sow some alsike and melilot clover this spring on waste places.

L. T. Mobberly.
Long Grove, Ky., Feb. 14, 1881.

Mitchell Hive.—I have 14 colonies in the Mitchell hive, in fair condition so far. I have used the Mitchell hive 2 years now and like it well. Bees done well here last summer. I commenced last spring with 6 colonies, increased to 14, and received from each colony 80 lbs. of extracted honey. I have received 5 numbers of the Weekly Bee Journal. I am well pleased with it, and would not give it up for twice its cost. It is just what I want, as I am a new hand at bee-keeping, so I can hear form those who have kept bees for a good many years. Success to the Weekly Bee Journal.

H. J. Smith.
Burlington, Wis., Feb. 8, 1881.

Information Wanted.—I was very much interested in Mr. James Heddon's article in the Journal for February 2d. He says: "I find that by the use of proper methods of adjusting sections on hives, and proper care after so doing, there is no need of those nuisances called separators." Now I should be very much pleased to have Mr. Heddon tell how to adjust the sections, and also how to care for them after adjusted. It is sure, that bees are hindered by separators, and from my experience, I find that metal is the only practical material to use, and the first cost of this is quite an item.

Carl Tuttle.
Berlin Heights, O., Feb. 5, 1881.

Spider Plant.—Will stock eat figwort or spider plant? I have some waste ground on which I can use both for bee food, but it is unfenced. Please answer through the Weekly Bee Journal.

E. S. Hopkins.
Jeffersonville, Ind., Feb. 17, 1881.

[We think they would not, unless there was great scarcity of other forage. Why not harrow in melilot? It possesses many advantages over either of the plants named, and the sooner put in the ground the better.—Ed.]

Bees Nearly All Dead.—My 40 colonies of bees are nearly all dead; if I have 5 colonies alive in the spring I shall be thankful. Some of them were in large boxes filled in with straw all around, and 6 inches of straw over them. I had 8 put up in that way, and not more than 3 of the colonies are now alive; the rest were in Langstroth hives, with straw in the caps, on the summer stands. I expect nearly all the bees in this section will die this winter.

H. M. Noble.
Swedesburg, Iowa, Feb. 10, 1881.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR.

CHICAGO, ILL., FEB. 23, 1881.

☞We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

☞We have received quite a number of catalogues of supply dealers. We will notice them all in the Bee Journal for next week.

☞In order to accommodate our foreign subscribers, and those in out-of-the-way places, where mails are infrequent, we have concluded to put the numbers of each month into *Monthly parts, with a printed wrapper*. Those who desire it in that form, can hereafter have the Bee Journal in monthly parts at the same price as the Weekly.

☞ It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

☞The following from a correspondent from Melbourne, Australia, is another illustration of the wonderful instincts of the honey bee:

> "A singular circumstance is reported from a hot, dry valley in New South Wales. Last year the drought there was of long duration, and the denizens of the apiaries suffered much from it. This year the bees have made provision against a similar emergency. They have filled a large number of the external cells in every hive with pure water instead of honey. It is thought that the instinct of the creatures leads them to anticipate a hot summer."

☞Mr. Robinson, on page 58 of the Journal, gives some items of history concerning the first importation of Italian bees into this country. We are sorry to see his reflection concerning "jobbery," and the dying of the bees belonging to the Government, *en route*. We had an interview with Mr. Parsons while in New York, and should be very sorry to intimate that he did any thing wrong in the matter. We are not able to contradict M. Robinson's statement, but we certainly do not *endorse* it. We did not notice the sentence until the "forms" were made up, and nearly ready for the press.

☞On account of unfavorable weather the convention at Monroe Centre, Ill., met on Feb. 8, and there being but few present, adjourned to the same place on March 29, 1881.

A. Rice, *Pres.*

☞ Sample copies of the Weekly Bee Journal will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

"Come; Let us Reason together."

A despondent bee-keeper writes: "I am about ready to abandon the pursuit of bee culture for something that will pay better." But what is there that is always prosperous, independent of times and seasons?

Fruit fails once in a while,—does the fruit culturist cut down his trees and burn them, and then search for something that pays better than raising peaches, apples or plums? Crops of grain often fail in large districts, as the result of atmospheric influence, insect depredations or unpropitious weather. Will farmers then cease to plow and sow, and go in search of something that will pay better?

The present severe winter has been very destructive on all kinds of live stock. Thousands of cattle have already died on the prairies and western lands,—will the breeder give up, and seek some other business that will not be so destructive and that will pay better?

Storms on Lake and ocean cause the the waters to yawn and swallow many a valuable vessel and cargo—does the mariner become disgusted and look for some business that has no drawbacks?

The manufacturer, the banker and the merchant often have to grapple with financial distress and commercial panics, do they forsake the counter, desk and factory, and look for some business that is without loss and trouble.

Prof. Riley predicts another visitation of the 13 and 17 year locusts, both broods coming together this year, which in their destructive career will eat up vegetation, and leave the earth bare in many and vast districts—will the agriculturists therefore, leave the fruitful fields of America and go to the barren hills of Italy: or the burning sands of Arabia?

No, indeed! such reverses but stimulate progressive men to further diligence and more dauntless courage. When the farmers, herders, fruit growers, merchants and bankers set the example, it will be time enough for bee-keepers to become discouraged. *Until then*, hold on perseveringly; for the average years will make as good a showing for bees and honey as any other business.

☞" Can I put in my advertisement once each month and reach all the readers of the Bee Journal?" This is a question that is asked by several. Of course you can. The first issue in every month goes to every subscriber—monthly, semi-monthly and weekly. But as 19 out of every 20 of all our subscribers take the weekly, it is a matter of small moment which week an advertisement is inserted. Those who are too poor to take a weekly, or those who are not enough interested in the art to get and read it, will not benefit an advertiser very much. Advertisements may be inserted every other week, or once a month, or weekly, as desired.

☞Any one desiring to get a copy of the Constitution and By-Laws of the National Society, can do so by sending a stamp to this office to pay postage. If they desire to become members, a fee of $1.00 should accompany it, and the name will be duly recorded. This notice is given at the request of the Executive Committee.

Now is the Accepted Time.

The season is rapidly approaching for the formation of plans for the summer's operations; and by the time this number has reached its respective readers, many can "take stock" of what is left and make almost exact calculations regarding the work to be done. Of course. the first question to be settled will be whether to manipulate the apiary to obtain the largest possible increase in numbers of colonies, or with a view to the production of honey alone. There are many who will "trust to luck" to shape their course for the future (as undoubtedly they have largely done in the past), and these will, we are sorry to say, be found to constitute the majority. But the calculating, careful, prudent, intelligent, *successful* bee-keeper, will form his plans in advance, and work systematically with a view to their accomplishment.

If increase be the object in view, the first warm, pleasant days will be turned to advantage in looking over the hives, cleaning up the combs (preserving the bright, straight ones, and melting the others into wax), selecting the strongest and best colonies in which to rear queens and drones, and overhauling the hives and frames so that the work of dividing and building up can be rapidly and systematically pursued. Make preparations, also, for prompt and liberal feeding at such times as the bees cannot gather honey. If there is a scarcity of desirable combs, now is the time to order your foundation; have it shipped by freight, and accept none but the brightest and best. If your hives are not perfectly satisfactory, or you are likely to need more, order them now, in the flat, and to be shipped by freight. Now is the time to ascertain if anything else may be wanted, and to procure it.

There are many, however, who will wish to devote their time and resources to the production of honey—having now about as many bees as they wish to care for, and depending upon natural increase for the number they may yet desire. These have much work to perform in building up their colonies to the requisite strength to gather honey rapidly and profitably. Now is the time to manufacture or order extra hives, surplus boxes, sections, extracting frames, comb foundation for brood chambers or for section boxes. If you have occasion to buy anything, send your order only to reasonable, responsible dealers—such as have built up a reputation by honorable, upright dealing, and who are not ashamed to liberally advertise their merchandise. Send them your order early, to enable them to fill it satisfactorily, and to give you the benefit of the cheapest transportation. There will be many wet, disagreeable days, unfit for out-door work, when the time can be profitably employed in putting together the hives, frames, sections, etc.; therefore, order everything flat. Do not delay ordering an article till you want to use it—it is short-sighted and disastrous economy. Be particular to state *just what you want* and *only what you want.*

Now is the time to make choice of waste or poor-producing soil for planting. Select and order your seeds at once—order liberally. Take advantage of the first general thaw to get in your clovers. Better have less bees and better pasturage, than more bees and poor pasturage.

We cannot close this article without expressing the opinion that, although the winter has been most disastrous to bees on this continent, it has been very favorable for the production of honey the coming summer, and those fortunate enough to have retained their bees will realize satisfactory results.

What will the Weather be?

In the East, during the second week in this month, the weather was mild and the "January thaw" took place. This allowed bees a good flight, and thousands of colonies were saved, which otherwise would have perished.

In the West, it is now a matter of much importance to know what the weather is to be for the next three or four weeks. Many colonies of bees need a "flight" so badly that if it cannot be obtained, death will be the result. They also need "feeding," which we are happy to say Prof. Vennor says may be possible this week. The Professor says:

> "With the beginning of the last week of the month, brilliant, mild, spring like weather will again appear, melting the snow and rendering the sleighing impossible in some localities.
>
> A few days before the close of the month high winds are likely to prevail, with gales around New York, Long Island Sound and other points, with blustry weather in Canada and the Northern United States. The last two days are, however, likely to be fair, and the month will end with little snow on the ground.
>
> March will come in like a lion. The beginning of the month will be characterized by storms of wind, which will culminate during the second week in heavy gales throughout the United States. On the 2d there will be heavy snow storms in Quebec and Montreal. On the 8th snow storms are probable in St. Louis, Kansas, Arkansas and Indian Territory. On the 9th and 10th gales are probable around New York, Boston and intervening points, and snow storms pretty general,
>
> About the 7th and 8th, storms of wind and snow may be expected, followed by rain and slush. This condition of things will terminate in a cold dip about the 13th or 14th, with a fall of snow. On the 13th, cold weather may be expected in Toronto, Sarnia and other points west.
>
> St. Patrick's Day will arrive during the cold snap in Ontario and Quebec and the Northern States, while rain, snow and sleet will prevail southward as far as Washington, and snow and rain will fall in the Canadian maratime provinces. With the beginning of the third week of this month general snow falls, from the Lower Provinces westward to Chicago, are likely to prevail. They will be succeeded by mild and spring-like weather, with indications of rain and snow; while heavy rain storms will probably set in in the Lower Provinces and portions of the United States.
>
> During the last week, heavy rains will prevail throughout Canada, with a probable fall of snow in the direction of St. Louis, Mo., and easterly gales in the in the Gulf of St. Lawrence. There will be signs of the opening of navigation in Ontario, while snow falls will be probable at points west of Montreal; On the 17th heavy rains will be likely in the Lower Provinces and Quebec, and through portions of the United States; and from the 20th to the end of the month there will be wet weather in Halifax. On the 30th the weather will be blustry, with sleet and snow possible at many points east and west. The old adage about March when it comes in like a lion will not be falsified, as the month probably will end lamb-like.

☞We give a good share of space to "Our Letter Drawer" this week, for many are watching with interest the reports from all over the country concerning the bees, how they are doing, what the prospects are, etc.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

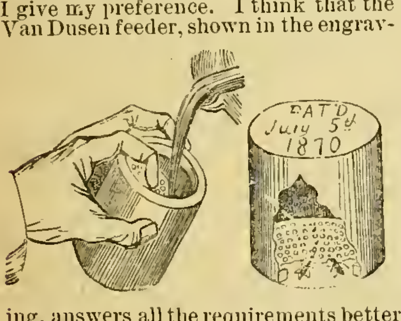
Feeding Bees.—Mr. L. C. Root, in the *American Agriculturist*, gives the following as his views ön the above subject:

The frequent inquiries at this season, as to the best feeder to be used, proves that many have not furnished their bees with sufficient stores to carry them thro' the winter. I am positive that our good yield the past season was very largely due to the fact that our bees were in fine condition in the spring. Still if I had bees without sufficient honey at this season of the year, I should make an effort to save them.

The first thing necessary is good food. Do not take the advice of some and use cheap food, made from grape sugar, which they recommend. We know of nothing better than best "A" sugar.

Next in importance is the manner of preparing and feeding it, as this should differ according to the season. In winter, the food should be as free from moisture as is possible, and be placed where the bees can have ready access to it. Prepare a piece of board of suitable thickness, just large enough to cover the top of the frames, and not allow the warmth to escape. Nail cleats on one side, at each end, to prevent warping, and with a sharp chisel scoop out the centre of the board, forming a trough large enough to hold as much as it is desired to feed. Then make a quantity of candy as follows: Put the sugar in a sauce-pan with a little water and a small proportion of flour and boil, stirring it until it begins to grain. Pour this candy into the trough described, and when sufficiently cooled remove the cover of the hive and invert the board upon it, so that the food comes over the cluster of bees. This being the warmest place in the hive, the bees can secure the food most readily.

As to the best method of feeding liquid food, there is a variety of opinion. I would not advise the feeding in liquid form at this season, but as in spring a feeder for this purpose will be needed, I give my preference. I think that the Van Dusen feeder, shown in the engraving, answers all the requirements better than any other. This is filled, as shown at the left hand, and when inverted and placed over the opening at the top of the hive, no honey or syrup will escape, except as it is taken by the bees.



As I am an earnest advocate of in-door wintering, I urge the readers of these notes to carefully observe the results of the severe weather of the present winter upon the bees being wintered out of doors. I admit that they may be safely wintered out of doors during milder winters, but I think the experiences of the present season will convince many bee-keepers of the necessity of adopting some system of wintering their bees adequate to the emergencies of our uncertain northern climate.

How to Ripen Comb Honey.—In the *Agriculturist*, Rochester, N. Y.. Mr. G. W. Stanley remarks as follows on the above subject:

Comb honey is capped over by the bees just as soon as it is sufficiently evaporated so that it will not sour in the cell if the temperature is kept at 100 or 102°, as that is just the heat of the hive when the honey is stored. If the honey is taken from the hive as soon as capped and put in a cool or damp place the honey will granulate, and the little water that is left in the honey will rise to the top of the cell, and will gather just enough sweet from the candied honey to sour and press off some parts of the capping, and thus form a leak. Now on the other hand, if the honey is taken from the hive and put in a warm or tight room, (as the honey will keep the temperature up to 90 or 100 if the room is well filled with honey), the process of curing goes on the same as in the hive; and as the honey becomes ripened, the mercury will begin to fall and in about two weeks you will see no difference from the honey being in the room. In 1879, my honey room, 12 ft. square and 8 ft. high, was kept at 90°, (having 4,000 pounds of honey in said room), when the mercury stood at 60 to 80° outside, and none of my honey troubled me by becoming granulated or souring. Honey cured in this way will show no signs of candy before March or April, and not then unless subjected to a great amount of very cold weather.

Extracted honey is more liable to granulate than comb honey, as it is taken from the bees usually as soon as it is stored, and before they have had time to evaporate the water that is in it, and so there is more water and less honey. This can be cured by putting it on the stove and bringing it nearly to a boil, skimming off the impurities, and the honey will keep until very cold weather before it will show any sign of granulation. When extracted honey becomes hard with no water to be found, it is ample proof of its purity.

I have given the most common way for extracting, but will now give the correct way. Leave the honey in the hive until it is all capped over, and then it will be cured as well as box honey; then with a sharp knife for the purpose, remove the capping and throw out with the extractor, putting the honey in a warm place, covered with a fine cloth or screen, to keep out flies and to admit the air, and your honey will become thick, and keep for a long time.

CONVENTION NOTES

North-Eastern Convention.

We regret to say that the third day's proceedings have not yet come to hand, although sent us by Secretary House some ten days ago. The "snow blockade" is the cause we suppose.

President Root's annual address on the subject of "Queen Bees," is as follows:

It is not my purpose at this time to discuss the merits of the different races of bees, or their crosses, neither to give the processes of rearing queens, which have many times been set forth; but rather to call attention to the all-important consideration of good queens. When we remember that the one queen of each hive must deposit all the eggs, and that when the weather is suitable, she will, if an opportunity is afforded, deposit all that her qualifications will allow, and when we also remember that the amount of honey which will be stored depends so largely upon the number of bees which are present to gather it, we catch a glimpse of the extreme importance of securing superior queens. Let it be understood that I am looking at this question from the standpoint of one who desires such bees as will secure the largest quantity of honey. This means, first, such colonies as will breed latest in the fall to secure the largest number of young bees to go into winter quarters. Second, such as are vigorous and will defend themselves best and also winter best. Third, such as will go through the spring months, and suffer least from spring dwindling. Fourth, those whose queens are very prolific during the entire season.

When we consider the many generations during which the queens have sustained and perpetuated the races of bees, have succeeded each other without change of blood, and were often mated with drones from the same mother, it is a great wonder that we find our stock occupying so high a position as it does at the present day. Well may we feel gratified that the great progress that has been made within the past few years, has arrested this hindrance to bee culture, and turned the attention of bee-keepers to this all-important demand. Let us notice first the condition under which queens were reared during the past. In many instances we must admit that during poor seasons only the best stocks would swarm, which secured the young queens from the best colonies only. Another fact in connection with this method, which resulted in advantage, was that in the uncared-for condition of our bees in those days, only the most vigorous survived the winter, thus destroying the poor stock, and perpetuating only the best, which had succeeded in gathering sufficient stores. These conditions which arose from natural causes and not from the intelligent care of the bee-keeper have tended to elevate rather than to hinder.

But let us notice some of the hindrances. All who are familiar with the habits of bees are aware of the large number of queens which are, or would be superseded during the season, when left to their natural tendencies. The queens of such colonies are inferior in various ways, some of them so poor that they have just enough fertility to deposit an egg from which a queen may be reared. Compare the quality of a queen produced under such circumstances with one reared with the attention that I shall indicate as essential.

The truest of sayings that "blood will tell," is as true of bees as of any form of animal life.

Where is the bee-keeper of much experience who does not in many instances feel the force of this difference each season? In an apiary as ordinarily conducted, colonies will vary in production of honey all the way from nearly nothing up to a very satisfactory amount, and this variation comes more largely from the difference in the quality of queens than from any other one cause. You will ask, how can all these obstacles be removed and the best queens be obtained? I answer, in the same way as all improvement is accomplished, by an intelligent persistent application of the best views of all interested. Much has been done already, but more remains yet to be done. Many of us have been, and are still working in various ways to improve our stock. We, with many others, have secured stock of the very best quality we could find, and from many different sources.

Here, in brief, is the course that must be pursued. Stock must be obtained of the very best possible quality and of different strains. Queens must be reared for their actually desirable qualities, and not for color or show. They must be raised at the proper season when the most favorable conditions may be secured. The queens must be derived from one strain, and the drones with which they mate from another, thus producing a direct cross. In this way the two colonies which manifest the most superior qualities may be used, from which hundreds of queens may each season be reared and fertilized for introduction into hives in other apiaries.

Until the practice of fertilizing in confinement comes into more general use, our location for rearing queens must be such that drones of inferior quality will not interfere with the carrying out of our plans. We must use great care in every particular, even if the expense is increased. It will be money well spent. I am no advocate of cheap queens, if reared at a sacrifice of best methods.

The question is frequently asked, to what age can we profitably retain our queens? This will depend upon the system of management. If the ordinary methods of the past is practised, and a queen is required to deposit but few eggs each season, she may continue prolific for four or even five years; but if she is forced to her utmost capacity in egg-laying, she may exhaust her fertility in two, or at most, three years.

At one of our meetings during the first years of this organization, I made a statement of my belief in the truth of this theory, but strong ground was then taken in opposition to it. Many years of actual practice have proven the correctness of the position then assumed. It is also confirmed by the experience of those who have noticed that colonies containing young queens are most vigorous, other conditions being equal. I am often asked if imported bees are preferable to home-bred. I think not, but I am far from discouraging the importation of queens. We need the new blood, but let it be selected with greatest care. All of us who are in any way interested in the improvement of bees in America, are largely indebted to the many enterprising men, who at much risk and expense have so successfully introduced new and desirable strains. Their labors should be generally appreciated.

The skill and thought which have been given to this subject in this country for several years past, have resulted in an improvement upon imported stock. Who would think of breeding from an imported queen to any extent without first testing her?

And by this I do not mean a test of color of her queens or workers. I have known equally desirable stock both in dark and light colored bees. We have stock at present of dark workers that are second to none as honey-gatherers, and are of extra disposition. I speak of this to discourage too strong effort in the direction of color without due consideration of other qualities.

Let us round up our standard of excellence until all valuable qualities shall be attained, not ignoring beauty, but let those appear handsomest which prove themselves *best*.

◆

Read before the North Eastern Convention.

The Wintering of Bees.

GEO. W. HOUSE.

The great and all important question now to be understood is, how to manage the apiary so as to carry the bees successfully through the interval from the 1st of December to the time of fruit blossoms in the spring. Give this knowledge to the apiarian and bee-keeping is a success. With all our noted apiarists, such as Quinby, Langstroth, Wagner and others as leaders in apiculture, we yet find many difficulties to encounter, that their wisdom has not sufficed to lead us to that desired goal—"perfect success." Hence it is that this subject of wintering bees is of leading importance and well deserves the earnest thought, study and careful experiments of our most practical apiarists. Then in discussing this all important theme, let us consider the facts that bear upon it, glean what we can from experience, and then see if we can arrive at justified conclusions.

With the benefit of our experience of over thirty years, I shall endeavor to give facts with the practical workings as derived from what knowledge we at present possess. We will commence by asking: "What are the requisites for safe wintering?"

It is a fact that bees, from their confined situation in winter, cannot excrete excessively without rendering the atmosphere about them unwholesome; this, with undue fecal deposits, is sure to bring disease. It is further true that excessive excretion of the feces is caused by long continued confinement. Therefore our first axiom: Bees to winter successfully must have one or more purifying flights.

The novice need not be told that bees take food during the winter. It makes no difference what the temperature, more or less food is consumed. Therefore our second axiom: To winter bees they must have sufficient stores of wholesome food.

It is further true that bees are compelled to move from one comb to others to secure their usual amount of food. This duty they cannot perform with a low temperature: hence our third axiom: Bees to winter well must be protected from the extremes in temperature. Furthermore it is a fact that with a high temperature bees move about the hive to carry their stores nearer to the cluster, and with a sudden fall of the mercury, many bees are frozen to death before they can again reach the cluster.

Therefore axiom four: To winter bees safely, they must have easy access to the different parts of the hive.

It is an admitted fact that a worker bee with three months of busy life, is aged and infirm; that a worker bee hatched in October will be in better condition at the age of six months than the one just mentioned at the age of three months; furthermore, old bees cannot generate as much heat as young ones, and as winter is the trying ordeal for bees, and with them the great struggle for life; no apiarist should expect that a colony of old bees will be able to stand this struggle, and in the spring build up the staggering colony to the desired strength, any more than they would expect an aged person to perform the manual labor of a robust healthy young man. Hence axiom five: To winter bees well they must be strong in numbers, as well as young and full of vitality.

Experience shows the importance of proper absorbents over and above the bees in winter. What experienced apiarist has not noticed the moisture in his hives during the winter, which often produces mouldy combs, and during cold spells changes into frost, and often approximates too near the cluster, keeping them from the needed stores; while in higher temperature it produces dampness, causing the bees to gorge themselves with honey to keep up the desired animal heat, and this in turn will result in a loss to the bees through the so-called disease, dysentery. Therefore to prevent any ill effects from an accumulation of these elements of destruction, we must cover them with some absorbing material that will not permit a draft of cold air through the hive, and at the same time a non-conductor of heat.

Thus far we have shown that the requisites to safe wintering are embraced in the following self-evident truths, viz:

1st—A sufficient quantity of well ripened honey.

2d—One or more purifying flights during the winter.

3d—A proper protection from the extremes in temperature.

4th—An easy access to all parts of the hive.

5th—Sufficiently strong in numbers and young bees.

6th—Proper absorbents over the hive and above the bees.

Now let us see how we can best supply the necessary requirements.

Our first requisite is a sufficient quantity of well-ripened honey.

If we do not extract the honey from the brood chamber, we will have but very little to look after, unless it be at the end of a poor season or with late swarms. Here the apiarist must use his own judgment, as circumstances alter cases. Some late colonies will want to be united, while others with a good family of bees and a sufficient quantity of comb will pay best to feed enough to carry them through until spring, or exchange combs with those that have to spare.

I am not in favor of extracting the unsealed honey from the brood-chamber in the fall. Our experience is such as to convince me that this is all useless. Bees will not seal the honey unless it is sufficiently ripened, and when we reach the middle of November, their stores will be all sealed honey, as every observing bee-keeper knows that the bees move the honey from the outside combs to the middle of the hive.

Of course our surplus arrangement should be in place during a flow of fall honey, that the bees do not crowd the queen in her labors. Then again there are some who charge the heavy losses to the bees sucking the juice from grapes and the refuse from a cider mill. I am thoroughly convinced from experience that this is not so.

One of our apiaries is located close by a large cider mill, but our percentage of losses is no greater in this apiary than with the others, everything equally considered. In regard to grapes, I would say that there are but few localities that produce more than are grown in the immediate vicinity of our home apiary, yet I can discover nothing that is in any way injurious.

Our second axiom: Bees to winter successfully must have one or more purifying flights during the winter. This is one of the requirements of nature. Bees that are prepared for winter on their summer stands will enjoy such flights whenever a favorable opportunity offers, providing the attentive apiarist is careful to keep the entrances always open. But those wintered in-door, if not permitted a flight from November to April will become uneasy, and in almost every instance they will be attacked with dysentery, causing dwindling and heavy losses.

Undoubtedly we have one of the best winter repositories that could be constructed. It is very dry, and has the desired ventilation; the temperature never falling below 37 degrees when only partially occupied. We have wintered 180 colonies in this cellar without losing a single swarm. Then again, if confined four months without a flight, they would surely come out in bad condition; but if they secured a good flght during January or February, or both, they were just as sure to come out in better shape. The oftener the flights the better they winter. Therefore I am convinced that bees wintered in repositories should be allowed a flight at every favorable opportunity. It gives them a chance to discharge the feces and clean up the hive. Here we have another objection to in-door wintering. As we many times have such opportunities of short duration, an apiarist with from 100 to 500 colonies, could not give his bees the desired flight, while if prepared on their summer stands they would enjoy the desired flight and return in a healthy condition.

The third requisite: A proper protection from the extremes in temperature. Those wintering in repositories are enabled to guard against these changes without much trouble, but those wintering out-door must necessarily give sufficient protection,

Perhaps I can best illustrate by giving our method of out-door wintering. First build a temporary shed facing to the south, by driving stakes in the ground, nailing up the back ends with any odd boards. Lay on the roof-boards in such a manner as to carry off the water, that it may not leak down on the packing; the roof should slant towards the back. It can be built any desired length, and just high enough to admit of easy packing around the hives. Now lay some scantling or poles on the ground and on these place a bed of straw or chaff, treading it well down between and over the poles, so that the hives should set 8 or 10 inches from the ground. Place the hives on this bed of straw about 6 or 8 inches apart, leaving about 10 inches space at the back. Now pack chaff or fine straw firmly between the hives and at the back, packing as high as the tops of the hives. (The method of preparing the hives I will give a little further along). Contract the entrances and your bees will improve the first opportunity for a flight, and they will have no desire to fly out under unfavorable circumstances. Prepared in this manner we are guarded against the extreme in temperature, and with the benefit of over twenty years' experience in in-door wintering, and various other methods, I am satisfied that this method is preferable to all others, giving the most satisfactory results, besides being the cheapest, attended with the least labor, and by far the most practical mode of wintering in this latitude. I will winter bees in this way with as little trouble, and as successful as any living man.

4th—To winter bees safely, they must have easy access to the different parts of the hive.

I contend that this is an all-important factor in successful wintering, After the fatal winter of 1878-79 I examined many hives in our neighborhood that had been wintered on their summer stands without protection. I found many hives where the bees had actually starved to death with plenty of honey in the hives. During the long continued cold they were unable to pass over the tops of the frames to procure the needed supply, while if there had been passage ways through the centre of the combs many would not have perished.

Then again with a higher temperature, the bees visit the outside combs to carry a needed supply of honey to where the bees are clustered. At such times the mercury often falls quite low very suddenly, when many bees are caught away from the cluster, and perish before they can gain access to that part of the hive where the bees are clustered. To obviate this difficulty, bore a ½ inch hole in the side of the hives a little above the centre of the frames; then with an iron spear pierce through all the combs. This should be done during the month of October.

Axiom 5: To winter bees *well* they must be sufficiently strong in numbers and young bees. This is a complex question, and one that I am not able to fully solve. As to being strong in number, I am satisfied is true. But in regard to young bees I am somewhat perplexed. At one apiary of upwards of 150 colonies, the bees have not stored a pound of fall honey in three years; they were fed nothing, and ceased brood-rearing in September, still they were wintered with a loss of only 3 per cent. At the other two apiaries fall honey was stored and brood-rearing kept up into October or November. The bees in all 3 apiaries were prepared for winter in the same manner, but the losses in these apiaries were larger than in the first named apiary. Then again in these two apiaries where fall honey was stored, I have noticed that some colonies that kept up brood-rearing late, wintered better than those whose brood ceased to hatch in early September, and *vice versa*. I think I can assign causes in many cases. However a plenty of young bees is desirable, it certainly cannot be detrimental.

Our 6th and last truth: Proper absorbents over the brood-chamber is universally acknowledged an essential point in successful wintering. There is nothing equal to a straw mat for this purpose. It has all the desired qualities, is the most durable, and is cheap and easily made Our hives are so constructed as to use surplus boxes at the sides of the brood-chamber. In winter this space (2 inches wide), is occupied by a straw mat, a mat is also placed over the frames, thus making the sides of the brood-chambers of straw mats. The second story or chambers of the hives should be filled with chaff or fine straw. We credit our success in wintering largely to these straw mats. From late experience I am of the opinion that dysentery or dwindling is attributable to an excess of pollen, instead of unsealed honey. The cells being partly filled with pollen, are finished up with honey and capped over. The bees consume the honey, leaving the pollen exposed to the damp atmosphere, and when in excess of their wants, becomes sour or so changed as to produce the disease. This element should be given the earnest study and experiments by our leading apiarists. I think it will solve a mystery.

SPRING MANAGEMENT.

The whole year depends more or less upon spring management. A very large per centage of the losses occur between April 1 and May 1. There are many causes to assign for these losses, but we have not the time or space to give them here. The most disastrous cause is from dwindling, and there are various causes that produce this wasting away, among which are dysentery, a lack of bees to keep up the desired warmth and the changes in temperature. We have already spoken of dysentery, therefore I will refer to only one cause not spoken of before. It is a positive fact that the heavy losses in this country have occurred during those winters attended with a heavy fall of snow. There being no frost in the ground, there is a peculiar dampness (varying in different soils), that arises from the earth that is a sure cause of this dreaded disease. I am fully satisfied from past experience that there is but one way to prevent this dampness, &c. Have your hives set on a bed of chaff or straw, and keep the snow cleaned away from the hives, so as to leave the ground bare. The earth will thus become frozen and thus cut off this dampness, and allow the bees fresh pure air. Those colonies that have not a sufficient family to keep up the desired heat for brood-rearing, should be given a frame or two of hatching-brood drawn from the strongest colonies, replacing them with frames of empty comb or foundation; while those that are queenless or have a poor queen, should be doubled up, and here, as all through spring management, the apiarist must necessarily use his own judgment, but always aiming to get his colonies strong as early as possible. The plan of taking from the strongest and giving to the weaker is the most practical yet known. A little judicious stimulating at times is also advisable.

Bees prepared for winter on their summer stands, should not be unpacked before warm weather, so as to avoid the change in temperature. Bees wintered in cellars suffer the most from these changes, and I am convinced it would pay to give such a proper protection after setting on their summer stands.

Before closing I will say: During cold spells do not disturb your bees, not even as much as to allow walking on the hard frozen ground near the hives. When it is warm, that is, when it is thawing in the shade, or nearly so, open the entrance to the hives, and with a wire bent at right angles about two inches from the end, clean out all dead bees, &c., that are on the board. This can be done without disturbing the bees. You should also raise the second story or chamber a very little, to admit of a slight circulation of air; this will cause the chaff or straw packing to become thoroughly dry. As soon as the dampness in the hive and chamber has thus been dispelled, let the chamber back to place, contract your entrances, and your hives are again in a healthy condition.

Before moving bees in the cellar or repository, the hives should be thoroughly dry, and in moving, disturb the bees as little as possible. When they are removed from the cellar, it is important that each hive shall occupy the same position as in the fall before moving.

In writing this essay, I have given instructions for this latitude, but the main principles will hold good in any locality.

Fayetteville, N. Y., Jan., 1881.

Read before the N. E. Convention.

The Marketing of Honey.

L. M. WAINWRIGHT.

"It has been estimated that there are 300,000 persons who keep bees in North America—an average of 10 colonies each will place the number of colonies at three millions, and if these produce so little as twenty-five pounds each, the honey product amounts to 75,000,000 pounds valued at $12,000,000.

"If the wax product of each colony is only one pound at twenty cents per pound it will amount to $600,000.

"Now the best methods for placing this enormous product upon the market is a subject of vast importance to honey producers.

"Any method that will add one cent per pound to the marketable value is worth to them three-quarters of a million of dollars; and any error of management, causing a reduction of one cent per pound, is to them a corresponding loss."

Hence the principle object in marketing honey is to create a demand for it. And to create a demand it is necessary to produce it in such a style as will attract and tempt the consumer, and so *pure* that you may gain the reputation of being honest. For it is well known to each of us that adulterations have been the greatest hindrance we have had in striving to make honey a staple article and that suspicion or distrust having found its way into the public mind is a very obstinate and disagreeable enemy.

As to the kind of honey we shall produce, whether comb or extracted, we should ascertain what our respective markets demand; and then dilligently apply ourselves to the work of meeting that demand.

Should it be comb honey that your patrons or your vicinity favors, bend every energy toward the raising of *pure* comb honey in the most marketable shape, and leave no stone unturned. Ambition is an absolute requisite to success in any branch of industry, trade or learning, and nothing is to be hoped for without it.

Comb honey should be put up in single-comb one or two pound sections, labeled with the name of the kind of bloom that produced it and the producer's name and address. These should be placed in a neat crate, probably ten or twelve in each crate. In order to expose the contents to the eye, and thus cause our careless "freight-lifters" to "Handle with Care," the crates should be so constructed that they may be glassed, then with a larger label on the lid of the crate, we have an attractive package which can be shipped almost any distance, or will look neat on a grocer's counter.

Should it be the pure nectar without unctuous, indigestible secretion, that finds the most ready sale, put it up in one-pound glass jars, cork them, cap them nicely with tin-foil and label them with the name of the kind of bloom that produced it and the producer's name and address. Or for shipping long distances it should be put up in five or ten pound cans or fifty pound spruce kegs.

In every case label with the producer's name, for then the names of those persons whose reputation becomes established by honesty will serve as a guarantee of purity, the others will be shunned. It is well to put a small label on the jars stating that pure honey will granulate on the approach of cold weather, and that placing the jars in water and heating it gradually will reduce it to a liquid without injury to its quality or favor.

Have everything neat and clean, no broken combs, no leaking jars and no soiled labels. Try to have the whole look like it had been put up by some very particular New England house-keeper, and I warrant it will look nice and attractive.

Now for marketing this tempting and delicious sweet. With comb honey in your own town or city, take a sample, a fair sample of what you have for sale, and go from house to house, do not miss one, and show to each lady of the house your honey and if necessary let her taste it, take her order for one or more pounds if possible, and at a reasonable price, and I warrant you will in a short time have a sufficient demand for your honey to pay you many-fold for you trouble in introducing it.

In placing the extracted honey before the people one is met with more opposition than with that in the combs, for persons in general are not aware, that the latter can be adulterated as well as extracted honey and at a much greater profit to the adulterator, and it is necessary to explain to them the fact and also to show them that extracted honey will granulate, and by so doing proves its purity. Take a sample jar of this honey for exhibition and one to open and let the lady of each house taste the contents, or which is still better, do as Mr. Heddon did—get small wide-mouthed bottles like the small morphia bottles and fill them with honey and send one to each house-keeper in town, with your compliments, and the price per pound, also where it may be obtained. This is the proper and only way of advertising a town for the sale of honey, and it will pay in every case. The women folks are the ones most generally who cause the sale of honey. One never loses anything by consistent generosity and a little makes a material difference in one's financial receipts.

The distribution of friend Newman's "Honey as Food and Medicine" serves as a good advertisement.

The mere placing of your honey on sale at some grocery will not advertise sufficiently, you must sell by sample and by sample only, until you have established a demand for your honey then you may have a headquarters, or put it on sale at each grocery store. If this is done see that each grocer places your article in a conspicuous place, and that he "talks it up." Try to keep your town and vicinity stocked at a reasonable uniform price will do it, provided, you advertise sufficiently.

If shipped away to market there should be no chaff packing used around the honey. Crates holding a single tier of sections, with top-bar down, are the best, as they are less liable to break and not so heavy as to be inconvenient to handle. Ship by freight, and attend to the loading yourself. Load the combs lengthwise to the car or if wagons are used, place them crosswise to the tongue Jars should be shipped in crates with no packing, but if to any great distance it is preferable to ship extracted honey in the spruce or pine kegs.

These methods of marketing honey have been used with great success by numbers of ambitious producers and it is evident that a method after this style, along with honesty, is our base for making what we all wish—honey a staple article.

Noblesville, Ind., Jan. 31, 1884.

☞ We will send sample copies to any who feel disposed to make up clubs for 1881. There are persons keeping bees in every neighborhood who would be benefitted by reading the JOURNAL, and by using a little of the personal influence possessed by almost every one, a club can be gotten up in every neighborhood in America. Farmers have had large crops, high prices, and a good demand for all the products of the farm, therefore can well afford to add the BEE JOURNAL to their list of papers for 1881.

PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

Local Convention Directory.

1881. *Time and Place of Meeting.*

March 12—Mills Co., Iowa, at Glenwood, Iowa.
April 2—S. W. Iowa, at Corning, Iowa.
5—Central Kentucky, at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 18—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A. I. Root)	3 00	2 75
Bee-Keepers' Magazine (A. J. King)	3 00	2 60
Bee-Keepers' Exchange (J. H. Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W. Thomas)	2 50	2 35
Bee-Keepers' Guide (A. G. Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
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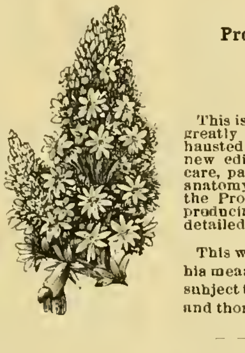
MANUAL OF THE APIARY,

BY A. J. COOK,

Professor of Entomology in the Michigan Agricultural College.



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This work is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. It is fully up with the times on every conceivable subject that interests the apiarist. It is not only instructive, but intensely interesting and thoroughly practical.

The following are among the many commendations received by the publisher:

APPRECIATIVE NOTICES:

All agree that it is the work of a master and is of real value.—*L'Apiculture*, Paris.

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Prof. Cook's valuable Manual has been my constant guide in my operations and successful management of the apiary.—J. P. WEST, Wells, Minn.

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This work is undoubtedly the most complete manual for the instruction of bee-keepers which has ever been published. It gives a full explanation regarding the care and management of the apiary. There is no subject relating to the culture of bees left untouched, and in the compilation of the work Prof. Cook has had the advantage of all the previous knowledge of apiarists, which he uses admirably to promote and make popular this most interesting of all occupations.—*American Inventor.*

It is the latest book on the bee, and treats of both the bee and hives, with their implements. It is of value to all bee raisers.—*Ky. Live Stock Record.*

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It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat*, Pulaski, N. Y.

We have perused with great pleasure this *vade mecum* of the bee-keeper. It is replete with the best information on everything belonging to apiculture. To all taking an interest in the subject, we say, obtain this valuable work, read it carefully, and practice as advised.—*Agriculturist*, Quebec, Canada.

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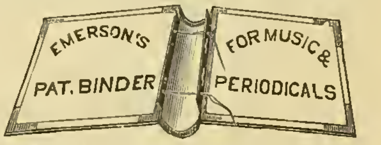

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SPECIAL NOTICES.

☞ "What is the meaning of 'Dec. 81' after my name on the direction-label of my paper?" This question has been asked by several, and to save answering each one, let us here say: It means that you have paid for the full year, or until "Dec. 31, 1881." "June 81" means that the first half of the year is paid for, up to "July 1st." Any other month, the same.

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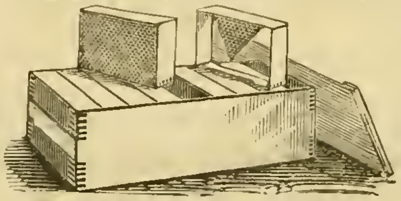

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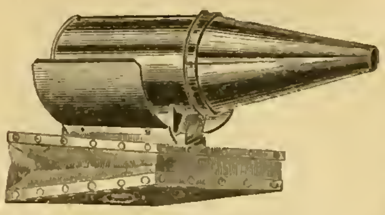

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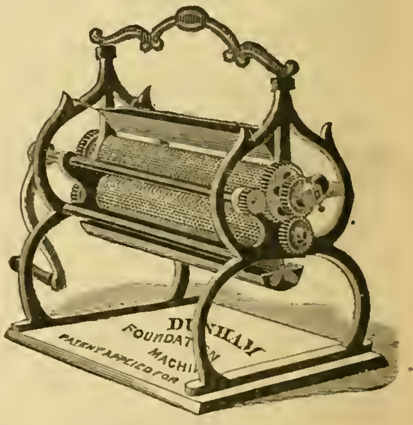

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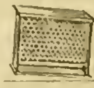

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I will sell the above at a bargain for cash, or trade for a small farm, or other desirable property. An offer for it is respectfully solicited. Address,

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ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., MARCH 2, 1881. No. 9.

THE AMERICAN BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,

EDITOR AND PROPRIETOR,

974 WEST MADISON ST., CHICAGO, ILL.

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CORRESPONDENCE.

For the American Bee Journal.

Restoring Bees when apparently Dead

REV. L. JOHNSON.

Every person knows that hornets, wasps, yellow jackets, and all the varieties of wild bees will be encased in frost and ice for months, and as soon as warmed and dried will be as active as ever. But the honey bee is not so constituted. Her blood is warm, and her system must be supplied with food to sustain life; yet during winter she lies in a semi-torpid condition, and may even seem entirely dead, and yet be restored. When a boy, I frequently found bees drowned in sugar-water during sugar making, and after they had lain for hours, could be brought to life by lying them in the sun and blowing the breath upon them. In some instances I have restored them after they had been in water all night. Langstroth states, page 25, that Dzierzon and Berlespech both subjected queens to as much as 36 hours of cold in an ice-house and then restored some of them to life.

The thought occurred to me recently that we might make use of these facts where bees had become starved and chilled in the hive. An opportunity soon occurred. A few days ago, in looking over my hives, I found one which had consumed all their stores, and were all about dead, except between two combs, and these could scarcely move. I immediately gave them some warm syrup, and placed honey on the top of the frames, covering them up. In about half an hour I examined them and found the whole colony active and lively, and they are now as vigorous as any colony I have.

In two other instances, bee-keepers with whom I have talked, have met with the same experience. One stated that he found one colony apparently dead, and frost among the bees, but on placing them in a warm room and furnishing them food, they soon became lively. In almost every instance I think bees can be resuscitated within 10 or 12 hours after they seem to be dead, unless they become frozen. In examining a hive, if any living bees can be found, if immediately supplied with food and gently warmed, they most likely can be saved.

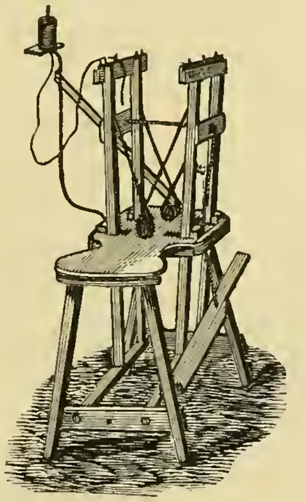
The last bees to die in a colony are generally those near the queen. Their last feeble morsel is divided with their mother, and oftentimes her position shows she had survived her children some time. Before giving your seemingly dead bees up in despair, make one earnest effort to restore them, and you may be rewarded by saving a valuable queen and colony.

Walton, Ky., Feb. 10, 1881.

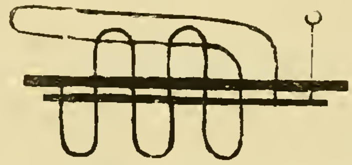
Given's Frame-Wiring Machine.

On this page we give some engravings, showing the machine used by Mr. D. S. Given for putting wires in the brood-frames before filling them with comb foundation. He gives the following description of them and how they are to be used:

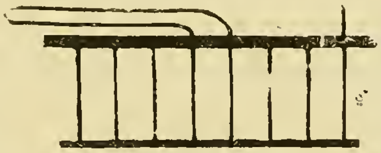
The two arms seen separated by the springs are regulated by set screws so they will open to a required distance. They are pulled together the foot lever. The upper and lower bars of the frames are punched by pairs, and each arm is made to hold its piece to the exact place by a spring, and are one-half inch apart.



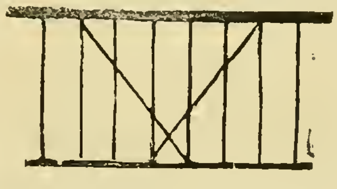
The wire is sewed through both pieces at once by using a harness needle. The wire is run in a Laugstroth frame as follows: draw the needle through the first set of holes and return it through the second set, placing the other thumb in the loop, and with the thumb draw out one arm length of wire, letting one-half of it follow the needle and the rest is dropped over a light spring at the foot of the arm, return the needle thro' the third set of holes, placing the thumb in the loop, now we pull with the thumb and the light spring on the other side will raise, letting loose of the wire to avoid kinks. Now we sew back and forward through all the holes, leaving a slack each time, and fasten the end by a small tack. The position the wire is now in, is seen in the following cut:



We now place the thumbs in the first two short loops, let up the foot lever, draw in the slack wire on the light spring by the first thumb, and then draw it out on second thumb, and we have all the slack in the centre of the frame, as seen in cut below. Rub over



the wires with the finger, and by the aid of the springs this slack is taken in and enough off the spool to let the frame to its set distance. If the angle wires are wanted, enough wire is broken off the spool to run them in, and the end is fastened on the same tack with the other. Then we have the upper and lower bars with the wires, as seen in cut below:



These are piled over the edge of a board, and are ready for use on the press.

The advantages in this machine is speed in wireing, saving over one-half the time. It can be worked by boys as it avoids kinks in the wire, and no danger of having the frame bowed by the wires. Then it is much better suited for lifting off the dies than the solid frame.

For the American Bee Journal.

Upward Ventilation for Bees.

G. M. DOOLITTLE.

On page 42 of the BEE JOURNAL, Mr. F. H. Miner, under the above heading, wholly ignores upward ventilation, and seems to think that "dangerous thing, a little learning," has put stupid theories into the brains of most bee-keepers—for the large majority of our apiarists of the present day favor upward ventilation. Let us look at the facts and see on whose shoulders the great loss of the past falls; if on the "learned array of acknowledged authorities," let them fall, and if on "these old basswood-gum men," *let* THEM *fall*.

Among the pleasant recollections of the past the bees are ever foremost, and at 10 years of age I was an anxious watcher of the bees, of which father had some 20 colonies or more. These were kept in the Weeks patent hive, where the bottom board was attached to the hive with wire hooks and staples, and with a button so arranged that for winter the bottom was allowed to hang suspended an inch below the hive, while in summer the button was so turned as to bring the bottom board tight to the bottom of the hive, except the entrance. With this hive, father had poor success in wintering bees, while a neighbor wintered his safely with the hive tight at the bottom, and a two-inch auger-hole at the top. Soon after the bottom boards were left fastened to the hives, and a large hole made near the top for the bees to go in and out at, and for ventilation, after which no losses occurred from wintering, of any amount. So much for wintering years ago.

Several years after, father lost all of his bees by that dreaded disease, foul brood, and no more were kept in the family till I purchased again in 1869. At that time there were plenty of bees kept near us in box hives, many of which were set on blocks, as Mr. Miner would have them for successful wintering. We adopted the upward ventilation theory, but not a direct current of air through the hive. Now for the facts again. While myself and four others have about 200 colonies each wintered with upward ventilation every year, not one of the box hive (or lower ventilation) men has a single colony.

Now, I wish to call Mr. Miner's attention to a colony in its natural home in the hollow tree in the woods. Here we find them quite as likely to go into a tree with the hole above the hollow as at the bottom, and those with the hole at the top seem to prosper the best. We also find that the hollow is composed of partially-decayed wood, especially above the combs. Thus, in the winter the moisture from the bees passes into the decayed wood, which surrounds them, and is expelled out each summer by the heat. Thus we have something pointing toward a porous covering for our bees for wintering, from which originated chaff hives, chaff cushions, etc. I also wish to say, his predictions of "great losses this winter from smothering," are all groundless. Bees cannot be smothered in such hives, seal the bottom as tight as you please. With upward ventilation and all air cut off at the bottom, there is no circulation only as the bees themselves cause it, and they make the circulation as they require it, and no more.

As regards giving water to bees, I think it wholly unnecessary, for the reason that I believe it a bad plan for bees to breed much, if any, before the middle of March, to the middle of April, according to the season. Colonies that commence breeding earlier are not as good, as a rule, on the first of June, as those of the same strength as to numbers of bees that do not commence to rear brood before the first of April. I am becoming more firmly convinced, that the practice of keeping bees in the cellar till pollen is plenty in the fields, is the correct one; and if bees are wintered out of doors, let them be packed with chaff to so great a depth that the sun's rays will not arouse the bees to activity every time it shines on them for a little while in the middle of the day, when the air is cool otherwise. This early breeding causes a much greater consumption of honey, and a greater loss of bees, without a corresponding benefit. When it comes steady warm weather, two bees are reared for one old one lost; while in early spring, two old bees are lost to where one young bee is reared.

Now, if Mr. Miner will take five colonies and pack them with chaff according to the best approved methods, stopping all lower ventilation entirely, and take five others, and winter them according to his theory advanced on page 42, I will guarantee that in two years from now he will admit that upward ventilation, through chaff, is the only correct way to winter bees, where wintered on summer stands.

Borodino, N. Y., Feb. 16, 1881.

For the American Bee Journal.

Honey-Producing Plants.

D. LANTZ.

Mr. Editor:—Please to let us know, through your excellent Journal, where the seed of the "Rocky Mountain Bee-Plant," and the "Sweet Clover Seed" can be had, and also which of these two seeds will produce the best feed for bees;

This is a great neighborhood for raising pork, and our farmers are making money in the swine culture. But their mode of raising pork differs very much from that of most honey raisers. They do not procure the best breed of swine, and then turn them out to take care of themselves, and find their feed as best they can; and if they succeed in gathering a little surplus, then rob them of it, and appropriate it to some other purpose. But experience has taught the pork raiser that "it pays" to plant and cultivate forty or fifty acres of corn, at a considerable expense every year, to feed swine. It would, however be considered a wonderful thing if some of our honey producers should be told that "it would pay" if they would cultivate only five or six acres of land every year, for the benefit of their bees. This would be regarded as too great an expense.

And then, the farmer that raises pork has not only to give the use of a large amount of land, and cultivate the corn, but he must also gather it, and then besides procuring winter quarters for the swine, must feed them twice or three times every day during the entire winter. This the bee man has not to do, because the bees gather their food, and also feed themselves. And yet we are told sometimes, that bees "won't pay." Neither would farming, or stock-raising, or merchandising, or banking, or any other business pay, if it was managed as many manage their bees.

Forreston, Ill., Jan. 25, 1881.

[The sweet clover is the best, by far. For where to get them, see our advertising pages.—Ed.]

For the American Bee Journal.

Bee-keeping in Canada.

WM. F. CLARKE.

It is estimated by those best qualified to judge, that there are about 10,000 bee-keepers in Canada. Only a small proportion of these are abreast of the times. The great majority are still in the dark ages of bee-keeping. It is proverbial that nothing is so successful as success. Mr. Jones' exploits have been recorded in our newspapers, and the result is quite a *furore* in the minds of many, who think they see in the road he has traveled so well, a sure highway to wealth. I receive many letters of enquiry from parties anxious to go into this line of business. It is quite impossible for me to answer them privately, but if the editor of the American Bee Journal can find a corner for

A CANADIAN QUESTION DRAWER,

I will try to fill it, and henceforth acknowledge such letters by sending a a postal card to the writers with the legend on it, "Subscribe to the American Bee Journal." If present and future subscribers to the Journal will write me direct, their communications will receive the promptest attention compatable with other duties. My address is Listowel, Ontario. By way of making a beginning, I will reply to a few letters in this article.

If those I select refer almost wholly to the A B C of bee-keeping, it must not be inferred that all are of this character, but only that these most urgently call for immediate attention.

OLD STYLE BEE-KEEPING.

"We have 45 hives of bees, and have been keeping them in the old fashioned way, that is, in the old box hive, and then after the swarming season is over, put on a smaller box called a 'cap,' on the top of the hive. When a colony does not do well, we smother it and take the honey. Now what I want to know is this—what kind of hive would you suggest?"

Keeping bees in the old box hive is entirely out of date, and the sooner it is abandoned the better. The difficulty with it is that you cannot regulate the internal economy of a colony, but must leave the bees to do pretty much as they please. Bees need management, the same as cattle, poultry, sheep, hogs, or any other kind of farm stock. What profit would there be from any of the live stock of the farm if they were left to themselves? Very little. Precisely so with bees. You must have access to them and control over them, or bee-keeping will prove a very unsatisfactory business. The main things about a hive are to have it of convenient size, and made on

THE MOVABLE FRAME PRINCIPLE.

These two points observed, the simpler a hive is the better. I have tried hives of all sorts and sizes; the result is. that I have found the most complicated and costly ones the most worthless. A hive costing about a dollar, unpainted, and without section frames, or a dollar and a half, painted or sectioned, is good enough for me, or for any common sense bee-keeper who has an eye to profit in bee-keeping. Such may be ordered as a pattern, and others made from it, or a quantity can be bought in the flat at a reduced rate, and nailed together by any man who has sense enough to use a hammer.

To adopt a hive of this kind, the bees must be transferred from the old box hives. How to do this is told in the bee books, and no man who keeps 45 colonies of bees, or a single colony, for that mttter, can afford to do without a good manual of apiculture. The cost of such a book is trifling when compared with its value and utility.

BEE-KEEPING AS A SPECIALTY.

"Farming is too hard work for me. I must engage in some business that will keep me out of doors, as my health is not good; therefore I think bee-keeping will be just the employment for me. How long would it take a person of ordinary intelligence to become capable of managing 200 colonies? Of course I intend to study thoroughly books that I will need to make me an expert at the business, but I know I will need a great deal of experience, study as much as I may, before I can become a good bee-keeper."

In reply to this, let my say very distinctly, that bee-keeping is a business which, like any other, demands an apprenticeship in order to run it properly. At the outset, the question should be raised,—have I taste, aptitude and general qualification for it? "Every man can't be a poet," nor can every man be a successful bee-keeper. This question settled, the next thing is to master the principles of apiculture. This can be done by the study of books. Then comes experience, which can only be got by handling bees. As a general rule, it is best to begin bee-keeping with one or two colonies. This does not involve much outlay, and if there should be failure at first, as it is very likely there will, the loss is not serious. I cannot say how long it would take a person of ordinary intelligence to become capable of managing a 200 colony apiary. I think if he spent two seasons with a first-class practical bee-keeper he might venture. I also feel safe in saying that if he begins with one or two colonies, by the time they multiply to 200, he will be master of the situation.

If a man has capital to invest, and can hire a thoroughly competent bee-keeper, it might be safe to start on a large scale, but it is with bee-keeping as with farming in general.

'He that by the plow would thrive.
Himself must either hold or drive."

THE BEE SMOKER.

"Of what use is the smoker, spoken of in articles about bees?"

This enquirer evidently neither owns a manual of apiculture nor takes a bee-journal. He will be wise to do both immediately, or sooner. A smoker is used to tame bees, in order that they may be handled easily. It is a pair of small bellows, with fire-box and funnel attached, so made that it can be worked with one hand. Smoke, properly applied, has the effect of quieting the irascible little insects.

FREEZING BEES.

"I wish to know whether bees should be let freeze in winter?"

No. They should not even be allowed to get chilled. They should be kept in a temperature a little above the freezing point. Then their natural warmth will keep them sufficiently comfortable, and they will relapse into a state of semi-torpor, remain very still, consume little food and stand a long winters' confinement without inconvenience. This may be secured by chaff-packing the hives out of doors, or setting them in a double walled house, the space between the walls being filled with cut straw, chaff, sawdust or tan bark. In a climate like that of Canada, the space between the double walls should be at least 20 inches. Our winter bee houses failed at first because the walls were too thin. They did very well in mild winter weather, but when a hard cold spell came, the frost crept through and stayed inside, to the destruction of the bees. Some have had good success by wintering their bees in a dry cellar, but it is not so easy to secure perfect seclusion of light and the desirable quiet in a cellar, as in a house built for the purpose.

For the American Bee Journal.

Dovetailed vs. One-Piece Sections.

JAMES HEDDON.

From the tone of Mr. Riegel's communication in the Bee Journal of Feb. 16th, I must think him honest in his opinions about sections. I know, for my own part, that no interest I ever had in any article prejudiced me an iota for or against it. Of course, I give Mr. Riegel the same credit I ask for myself, more especially after reading his gentlemanly and enthusiastic article. It has always been my idea that behind enthusiasm lies honesty, if nothing more.

Allowing that we are strong believers in the claims we advocate, the next point to settle is the question of who is right. Mr. Riegel's method is surely a novel one, and I do not see what is to hinder our making the "premium" $1,000, so long as we risk nothing, and provided the National Convention do not object. I see no reason why they should, unless it depends upon the little matter of the $1,000. But, really, is it not a *better* test to wait, and see which goes into general use? This will give us the honest decision of thousands of practical bee-keepers, instead of ten "picked" ones. We can remember and wait; can we not?

I do not want your $10, nor the National Association to have it, without some equivalent. A wager would prove nothing, but to show our earnestness in the matter. I believe nearly or quite every reader of the Bee Journal will give us credit for that virtue, and we can keep our pocket-books out of this controversy.

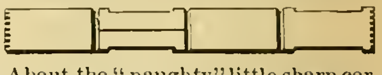
The spruce sections I had reference to are of my own style. Have you used them, Mr. Riegel? I have used only a few of the Root and Lewis & Parks one-piece sections. Now, I wish to say that I have never seen a one-piece section that, when doubled together, the joints did not shut so loosely as to make a weak, rickety box, or so tightly as to strain the thin shaving that held the parts together, which, after a while, cracked apart; generally, the former objection—or both—at different corners.

In a back number, the editor of the Bee Journal said that nailed sections were preferable, because they were stronger than those dovetailed. There are times when combs of honey need the support of a strong section; a section that will yield $\frac{1}{8}$ of an inch will injure those combs materially at such times. The great majority of one-piece sections have this rickety condition, so far as I have seen them.

Again, is it possible to make machinery so true that you can make a one-piece section, or cut pieces to be nailed, so that when squared up into boxes they *will be* square? I think not; I have never seen it done. The dovetailed boxes can be pressed square instantly.

I have never seen any dovetail work, except this spruce New England box, in which the dovetailing was *tight* enough to make it as strong as nailed. I am not prejudiced in its favor because I adopted it; I adopted it because I was prejudiced in its *favor*. It is no blood relation of mine, only a child by adoption, and I can cast it off any hour and take the one-piece section to my bosom, and I *will*, when I think as Mr. R. does.

A section that is as solid as a nailed one, and has the advantage of thin pieces all around, and the still further advantage that you press it to *any* angle, right, acute of obtuse, and it is solid the same, is the section "I prefer."



About the "naughty" little sharp corners," can you not see them in the above cut? Do you not see how they will snag the caps of the combs next to them? If separators were used they would not; but if no corners are there they will not, where no separators are used. We cut up three boxes of tin into separators, and watched the effects closely for two years, and these separators are better adapted to some supply dealer who can "grind" his ax with them. We use them to patch knot-holes, etc. I suppose if the one-piece section was (as it can be) made *without* the corners (*i. e.*, so the narrow piece would extend clear through), that the warping of the wide pieces would all the worse break the shaving that holds them together. I think, of the two evils, the least one is chosen by putting on the "naughty corners," as shown in the cut.

I have mailed to Mr. Riegel a sample section such as I use, and trust it and time will convince bee-keepers that I am right. If to the contrary, that I am wrong, then I will say, "I was mistaken; that is all."

Dowagiac, Mich., Feb. 18, 1881.

For the American Bee Journal.

Best Hives for Winter.

HENRY ALLEY.

The present winter will demonstrate whether single-wall or double-wall hives are the best for wintering bees on summer stands. I am inclined to the opinion that double hives are the best. I have both kinds in use, and as my bees are on the summer stands, I am able to say which are doing the best.

I examined a few of each the other day. I found that the inner sides of the single hives were very frosty, though the bees and frames were covered with a chaff cushion 4 inches thick; but the bees were in fair condition. Those in the double-wall hives were free from frost, nice and dry. The double hives are exactly like Root's chaff hive, only no chaff is used between the inner and outer walls. This style hive was made by me 15 years ago. I see no need of filling the space between the hives with chaff. A dead-air space is all that is needed. It would seem like nonsense to build a house with walls 10 feet thick, and leave the doors open during the winter. Now, that is exactly the case with chaff hives. I further noticed about the single hives, that where the snow was piled against them, the moisture condensed there, and considerable more frost was opposite those places where the snow touched the wood than in other parts of the hive. With the double hives that was not the case.

I am inclined to think that double hives are the best to winter in on the summer stands. The bees in the single hives will fly when it is too cold, while those in the double hives will not. This is owing to the bees having been confined to their hives so long, as they would not attempt to fly from any hive if confined only a month.

It is nearly three monts since my bees saw daylight until to-day, when they had a good flight. They are all out of doors. This is the hardest winter in all my experience for bees—it being two winters in one.

I have made a new double-wall hive. on the Langstroth principle, for wintering bees in on the summer stands, which I may describe in a future article.

Wenham, Mass., Feb. 21, 1881.

For the American Bee Journal.

Apiarian Melange in General.

DR. J. P. H. BROWN.

MR. EDITOR:—In most things I am very conservative—never care to give up an old and tried friend for a new one. I was familiar with the old AMERICAN BEE JOURNAL. from the days of the polished and gifted Wagner. I looked upon it as an old steadfast friend; and when you proposed to change it into a weekly, I received the announcement with anything but favor. I have now received 5 numbers of the "transformed" JOURNAL, which are sufficient to stamp its character. I must congratulate you on your success. In subject matter, in general get up, in neatness, beauty and clearness of typography, the world cannot beat it.

Comb Foundation again! After reading our friend John Bourgmeyer's criticism of my article on comb foundation, I felt, perhaps, that I had unwittingly committed what Bro. Clarke terms an "Irish bull." If I did, I can't see it. I discussed foundation, *not* machines; and I cannot conceive how any one could misapprehend my remarks.

There is no doubt, Mr: Editor, that much newspaper debate could be saved if persons would avoid *reading* by the rule of *distortion*, abstain from *thinking* by the rule of *twistification*, and stop *speaking* by the rule of *inflation*.

Our winter:—The winter has been the coldest for many years. As bees are wintered out, with no protection, I fear all weak colonies will suffer, and probably die before the 1st of March. Box-hive bee-keepers will lose heavily. Those who use the frame hive can save many colonies by liberal feeding.

Augusta, Ga.

For the American Bee Journal.

Size of a Colony of Bees.

E. A. MORGAN.

In the February number of the BEE JOURNAL, E. B. Southwick speaks of my report, and thinks my statement that 3 pecks of bees make a good strong colony, and that my 24 would make that amount, a little large. He thinks that bee-keepers generally consider 1 peck a large colony, 4 quarts a fair colony, and 2 quarts a small one. We might agree, if he had said on the 1st of April; but if he means during the honey yield, I do not agree with him, neither will any bee-keeper who has studied the business and found what it takes to secure a large surplus. This idea of a colony would ruin beginners; they could never winter a colony, and would never get any surplus. Nothing is more correct than that large colonies give the surplus. This is the essence of all profitable bee-keeping. I think all successful bee-keepers will say with me, that I peck of bees is a very small colony, and 4 quarts or 2 quarts are nuclei for queen-rearing, and should be united. If surplus is the object, certainly if hived after June 1st they would not be expected to go into the sections, and would not go into them if expected to. I have bred queens for two years from two colonies which proved the most hardy, most prolific, and the best honey-gatherers. I have beheaded many queens because they could not keep up a colony, and have succeeded in getting a race which are profitable. Several of my colonies were worked in 10-frame 2-story Langstroth hives, and filled them with bees from June until frost. Any one of them would measure 3 pecks. They flew in one continuous stream, and a colony such as Mr. Southwick speaks of, could be shaken from 4 frames any time during the season. His frame—12x13 in., 9 in a hive, could hold 28,800 bees, while 50,000 is considered a good colony; thus his large colony is 21,200 bees short of a colony—50,000 dead bees measure 3 pecks. I have under-estimated, for I think some colonies will reach 60,000 bees.

My plan is to keep prolific queens, which will fill the hive and surplus arrangement full of bees, and then with hard work, constant watching and proper manipulation, we can secure a large surplus. My best colony gave me 245 lbs. of comb honey this season, while the parent colony gave 185 lbs.

I do not think my mode of packing expensive. The outer case is 8 feet of "cull" lumber; the entrance is left open. only one thickness of duck is put over the frames, then the upper story is put on and filled with dry chaff. The gases escape at the bottom, the moisture passes up through the packing, and the heat is retained. My bees, put away as described in the article in December BEE JOURNAL, have passed through the most severe winter ever known in Wisconsin this far, and every one is in the best possible condition, not losing a gill of bees apiece. They have flown for the last two days. If nothing unusual happens them hereafter, I intend to improve upon last year, if possible.

Arcadia, Wis., Feb. 10, 1881.

For the American Bee Journal.

Chips from Sweet Home.

D. D. PALMER.

It is doubtful about there being any plant that will pay to cultivate for honey alone, although there are many which will pay to cultivate for fruit and honey. Which one will pay best, will depend upon how the owner is situated.

The raspberry affords considerable honey and blooms with white clover, being of value especially when we have wet weather as the bees will gather honey from it when the rains wash the nectar out of the clover. I have been unable to notice any difference in the amount of nectar yielded by the black, red, or yellow raspberries, there is a difference in the time of blooming, corresponding to the time of ripening the fruit. Of the yellow varieties, I have not yet found any worthy of cultivation.

Of the red, I would cultivate Brandywine for market; it is productive, of uniform size, bright red color and firm. and bears handling well. For home use I would prefer the Turner, as it is a better flavored berry, but too soft to bear handling.

Of the black raspberry there are several varieties, the berries of which differ less in flavor than the red; as to which of them is best to cultivate, would depend upon what we wanted them for. The Davidson's Thornless is free from thorns. and is 2 to 3 days earlier in ripening, but of small fruit. and only a few plants will make good strong bushes. The Doolittle ripens within 2 or 3 days of the above, grows upright and stocky, and an abundant bearer of good sized berries; for an early raspberry it is my choice. Lumb's ever-bearer, bears the usual crop, and then continues to shoot up suckers which bear till frost. It is not a profitable berry, for the usual crop is light, and to have a dish of fresh raspberries after all others are gone, you would need a large planting. The Miami and Seneca are good, if we did not have better to fill their place. The Hoosier is a new variety just being introduced, a good bearer of good sized uniform berries of a glossy black color. The Gregg is also new, but more thoroughly introduced than the Hoosier; a good bearer of berries, of uneven size, running from small to very large. For a late bearer, the Mammoth Cluster has remained the standard for many years. grows upright and stocky, productive, berries large, and make strong plants. The Sweet Home is another new one originated in 1873; the bush grows upright and stocky, very productive, bearing 125 bushels per acre, while from 50 to 75 bushels per acre is considered a good yield for other varieties; the berries are uniformly large, and continue so till the last picking. It is a late bearer, from which 2 or 3 pickings can be had after blackberries. The above are all hardy.

New Boston, Ill.

For the American Bee Journal.

Bee Notes from Mississippi.

OSCAR F. BLEDSOE.

I began the last season with 25 colonies; lost 8 or 10 that "went west;" increased to 76, mostly by natural swarming; have now about 55 colonies. I extracted about 600 lbs. of honey. My error was in allowing them to swarm too much. This season I shall try to repress all swarming, and bring each hive up to the largest capacity, to wit: 2 stories containing 4,000 cubic inches, well filled with bees. I could, with the start I have, easily increase into the hundreds; but as I doubt the pecuniary profit of bee-culture here, I do not desire more than I have at present.

Wintering is easy here. Any hive with a moderate supply of honey, will winter well on its summer stand. It greatly assists wintering, to fill a frame of the lateral dimensions of the top of the hive, 2 inches deep, the bottom covered by coarse cloth, with cotton-seed, and set it on top of the hive under the cover. All the honey gathered up to Aug. 1st is of excellent flavor. There is little sale for bees or honey here.

I have received many inquiries from Northern men as to this section. It is good for cotton, corn, wheat, potatoes, fruit, etc. All the hill portions of Mississippi are healthy. Northern men could do well here. All are welcome who propose to help us till the soil or develop the country. Land is cheap and easily obtained. The best way is to come and look for yourself; make a selection, and send for those left behind.

Grenada, Miss., Jan. 27, 1881.

For the American Bee Journal.

Those Stingless Bees.

L. L. LANGSTROTH.

In his prospectus of the "Stingless Bee Association of America," Mr. Hawley says:—"On the 15th of September last, the undersigned published in an Albany newspaper an article on the subject of 'Stingless bees,' which, so far as I am aware, was the first intimation the bee fraternity of the United States had that there existed anywhere on the habitable globe, a species of the honey bee that had *no stingers*."

For the benefit of Mr. Hawley and others, who through his ignorance on this matter, may be at much expense, which will result only in disappointmet, I will give you some facts as to the stingless bees of South America.

The stingless bees belonging to the genus *Melipona*, have been long known both in Europe and in this country. Notices of them will be found in works on bee culture. Before the death of Huber, a colony was presented to him. In 1860, a colony presented to Mr. Judd, of the *American Agriculturist*, was sent to Mr. Parsons' apiary, at Flushing, L. I., and placed under the care of Mr. Cary, of Coleraine, Mass., who that year had charge of Mr. Parsons' apiary, Mr, Cary told me that they all died after the first cold weather. Their honey was stored in waxen pots shaped like the half of an egg, and entirely separated from their brood combs. Retreating, on the approach of cold weather, to their brood combs, they starved to death. Even with honey stored in brood combs, we find it often difficult in very cold weather, to save our bees; how utterly impossible would it be to do it, if the honey stores were outside of the brood combs where the bees must cluster for warmth?

Mr. Newton, when Commissioner of Agriculture, had a colony of stingless bees placed in the botanical garden at Washington. The late Samuel Wagner and myself examined these bees, or rather saw them flying in and out of the hollow log in which they were brought from South America. This colony also died as soon as the weather became cold.

I believe that Mr. Hawley would be as successful in raising oranges and bananas in the open air where the mercury sinks below zero, as in rearing these bees anywhere in the U. S., Southern Florida perhaps, excepted.

One word more:—"These bees," I quote from Mr. Hawley's circular, "are indigenous to Brazil, south of the equator, inhabiting a climate similar to that of Italy, and with surroundings very like those of that country." Does Mr. Hawley suppose that in Italy, no part of which is exempt from occasional frosts and snows, the climate is similar to that of Brazil?

If Mr. Hawley will refer to the back volumes of the BEE JOURNAL, he will find that before the Italian bees were carried to Brazil, the honey interest there was of small account. The German who carried that bee there, and who, by disseminating it among the natives, after showing what could be done with it, seems to have had no fear or reverence for any or all of the 18 varieties of Brazilian bees described by Mr. Hawley. And yet he does not seem to have *crried coals to Newcastle.*

I will close by referring to an extract from vol 5, of the BEE JOURNAL, p. 179, "Bees in Yucatan," which was printed on page 5, of the JOURNAL for this year.

Oxford, O., Feb. 21, 1881.

For the American Bee Journal.

Perforated Zinc to Confine Queens.

CHAS. DADANT.

At the National Convention in Cincinnati, Mr. Jones announced that he had made *an important discovery.* This discovery consists in a sheet of perforated zinc, to prevent the queen from laying in the upper story, or in part of the combs, as well as to hinder the bees from swarming, by preventing queens from going out of the hives.

This device was described by its first inventor, Mr. Collin, 16 years ago, in a French book entitled, *Guide du Proprietaire d'Abeilles*, 1865. I find it also in the French bee journal, *L'Apiculteur*, for March, 1866, with engravings, Perforated zinc sheets are advertised in two French bee journals, and by G. Neighbour & Sons, in every number of the *British Bee Journal.*

Although knowing this device for 16 years, I have not presented it to the American bee-keepers, because I consider it as a poor way of preventing queens from laying in the combs destined for the table; for there is more loss of time, for the bees, to cross the perforated zinc, than profit in preventing the queens from soiling a few cells with brood.

As to the prevention of bees from swarming, the final result, obtained by the use of this implement, would be the killing of the queen by her own bees.

Several years ago the lamented Mr. Quinby had invented a queen-yard, to prevent swarming. The queen, who had her wings clipped, was hindered from following the swarm by bands of tin, which were nailed all around the yard, and the bees were compelled to return to the hive.

I tried this device on 14 of my colonies. In 3 hives I saw the queens attempting in vain to follow the swarms, while some angry bees pinched them, as they do the drones when they want to get rid of them. The colony which had tried swarming first, killed its queen at the third attempt at swarming.

As I saw both of the others continue their attempts, with the same violence towards their queens, which they would have killed also, I hastened to satisfy them, by making swarms; then took out all the other bee-yards, never to use them again.

Of course, the same results would follow the use of these perforated sheets, I therefore advise all the bee papers to copy the above article for the benefit of their subscribers; for the opinion of a man so well known as Mr. Jones, would lead a great many of them to try this obnoxious device, and reap loss and disappointment.

Hamilton, Feb. 7, 1881.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR,

CHICAGO, ILL., MAR. 2, 1881.

Do Bees Puncture Fruit?

EDITOR JOURNAL: The following complimentary notice of the Weekly BEE JOURNAL is condensed from the Lancaster *Farmer:*

"The BEE JOURNAL enjoys the enviable reputation of having been the first periodical exclusively devoted to apiculture in America, and it is, at this time, the only *weekly* paper devoted to that specialty IN THE WORLD! It is a remarkably clean and clear print, and we commend it to our patrons and the public. Each number contains eight pages, well filled with the most ably conducted bee literature in this or any other country. The Weekly will be acceptable to the old patrons of the BEE JOURNAL (and their names ought to be "legion") not only in America, but wherever the English language can be read, or bee culture pursued. And here we would respectfully suggest that so able a specialist as the editor of this JOURNAL should solve the problem, if possible, whether bees do really tear open and destroy the pulp of grapes or not. That charge rests upon them hereabouts, whether true or false, and we would like to have the sentiments of those who are able to speak with authority upon this much mooted subject."

The reader will observe the invitation of its editor, for a free discussion, "Whether bees injure or destroy sound grapes?" and as the impression prevails in some localities that they do, it is hoped that the subject will receive through the columns of the JOURNAL the attention it deserves.

Pine Grove, Pa. W. H. STOUT.

The editor would remark that he is unable just now to solve the problem. Many able and experienced apiarists state that they have *tested* the matter, by placing grapes already punctured before the bees, and when they were busily engaged in sipping the juice therefrom, that they had removed the punctured fruit and put sound grapes in their place; and that in no case did the bees puncture the sound fruit.

On the other hand, many grape-growers assert, as positively, that they do puncture the sound fruit. In some cases, however, they have since admitted that upon closer examination they found the grapes had been previously wounded by wasps or other insects.

The question, then, must be settled by observation, acute and critical; and we invite those who have witnessed any depredations of this sort to state the matter in the BEE JOURNAL. We do not want theories; but positive witnesses, or physiological reasons why bees cannot commit the offenses charged against them.

We want the facts—whether it be for or against the bees—to ascertain the *truth* is our only object. If bees can and do commit such depredations, then we must protect our neighbors, or remove our bees to places where they cannot annoy them personally nor destroy their fruit, unless the fact be established that they recompense for all damages, by the timely assistance they render in the fructification of all fruit germs. If they do not, we want to be able to convince our horticultural friends that they are wrongfully charging mischief to the bees.

The Law on Food Adulteration.

The following letter on this subject is from Dr. N. P. Allen:

Smith's Grove, Ky.

I am much interested in the articles on adulteration in the BEE JOURNAL. All consumers are interested in having food adulteration prohibited, and bee-keepers should use all their influence to have such a law passed as soon as possible. We need a *general* law, to include every kind of adulteration, attaching a heavy penalty, to be divided between the informant and the government. A special law, such as we have in Kentucky, is valueless—a failure. The English law, as given in the BEE JOURNAL, is to the point as far as it goes, but I would have it embrace all commercial articles, for we suffer by the adulteration of almost every artice we purchase.

The enforcement of the law is the difficult portion, hence the necessity of paying the informer liberally for bringing the guilty parties to justice. A sufficient number of chemists should be appointed in every State to analyze articles presented for that purpose, and every thing should be sold under its right name. N. P. ALLEN.

"Aye," Doctor, "there's the rub;" these chemists are not above reproach—they too, can be bought or bribed, or are either incompetent or too lazy to make a proper analysis. A case in point occurred in this city only last week. A manufacturer purchased a barrel of honey, and upon finding it granulated, he concluded that it was adulterated. (He had hitherto been using that not granulated.) He applied to a chemist, and that functionary decided (without analysis), that it was about one-half glucose. We were then appealed to and informed the manufacturer that the granulation was of itself proof of purity.

By such indolence, and may we add, ignorance, will not the average chemist often decide contrary to the facts in the case, and thus make the law of no avail? Another case in point occurred in this city during the past month—where an official, by a series of excuses, put off the informant, (for we have a city law against the butter fraud), intending apparently to wear him out, and defeat the enforcement of the law.

It will require the closest scrutiny and the most practical knowledge, to make a law that will be successful in driving to the wall, the unscrupulous adulterators. We must confess we have but little faith in the law before congress, and if passed, we fear that it will prove more of a snare than a blessing.

New Publications and Price Lists.

"EXTRACTED HONEY; Harvesting, Handling and Marketing." This is the title of a 24 page pamphlet, by C. & C. P. Dadant, Hamilton, Ill., price 15 cts This gives in detail the methods and management adopted in their apiary. It contains many good and useful hints and is well worth the price.

PRACTICAL HINTS TO BEE-KEEPERS, by Chas. F. Muth, Cincinnati, Ohio; 32 pages, 10 cents.—This pamphlet gives Mr. Muth's views on the management of bees, and embraces several of his essays given at Conventions, &c. It will be read with interest by beginners as well as those more advanced in the science of bee-culture.

THE KANSAS BEE-KEEPER is to be issued monthly by Scovell & Anderson, Columbus, Kan. It contains 4 pages, about two being reading matter, and is evidently intended to wake up an interest in bee-culture in that state and sell their supplies. It will no doubt accomplish its mission.

The following Circulars and Price Lists are on our desk.

D. S. Given, Hoopeston, Ill.—18 pages, descriptive of his comb foundation press and wired frames.

Riegel & Drum, Adelphi, O.—An 8 page price list of bee-keepers' supplies.

Paul L. Viallon, Bayou Goula, La.—16 page price list of implements for the apiary.

J. E. Moore, Byron, N. Y.—4 pages, descriptive of his Perfection Honey Box, &c.

W. J. Davis, Youngsville, Pa.—3 page price list of Italian Queens and Bees.

Hiram Roop, Carson City, Mich.—1 page—Italian Bees, Hives, &c.

J. P. Moore, Morgan, Ky.—1 page—Italian Queens and Bees.

Williamson & Bro., Lexington, Ky.—32 pages—Lumber and Bee-keepers' Supplies.

M. Richardson, Port Colborne, Ontario Canada.—8 pages—General Supplies for the Apiary.

J. A. Osborn, Rantoul, Ill.—4 pages—Implements for the Apiary.

A. E. Manum, Bristol, Vt.—32 pages—General Bee-keepers' Supplies.

Frances Dunham, Depere, Wis.—16 pages—Comb Foundation, Machines, and Apiarian Supplies.

Alfred H. Newman, Chicago, Ill.—32 pages—Bees, Implements for the Apiary, Books, &c.

G. M. Doolittle, Borodino, N. Y.—12 pages—Bee-Keepers' Club List, Queens, &c.

S. E. Stauffer, Adamstown, Pa.—1 page—Poultry and Bees.

J. D. Enas, Napa, Cal.—1 page—Italian bees, queens, hives, &c.

James Heddon, Dowagiac, Mich.—20 pages, describing his hive, and giving prices of supplies generally.

F. L. Dougherty, Indianapolis, Ind.—12 pages—Bee-keepers' supplies, bees, queens, &c.

Edward B. Beebee, Oneida, N. Y.—12 pages—Cyprian, Syrian and Italian Bees, &c.

D. A. Pike, Smithsburg, Md.—4 pages—Albino and Italian bees and queens.

C. H. Lake, Baltimore, Md.—28 pages—Apiarian Supplies and Club List for bee papers.

J. F. Hart, Union Point, Ga.—8 pages—Hives, Frames, and Bee-keepers' supplies.

F. W. Holmes, Coopersville, Mich.—4 pages—Comb Foundation, Extractors, Smokers, &c.

Dr. J. P. H. Brown, Augusta, Ga.—26 pages—Italian and Cyprian Bees, and Apiarian Supplies generally.

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☞ This issue of the BEE JOURNAL, the first in the month, goes to all the subscribers of the Weekly, Monthly and Semi-Monthly. Should any of the latter wish to change to the Weekly, they can do so at any time, by paying the difference.

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☞ Right glad are we to welcome the Rev. L. L. Langstroth to our corps of correspondents. Having in some measure been restored to health, he immediately grasps his pen, and the article entitled "Stingless Bees," on page 67 of this JOURNAL, is the result. Nearly two years have elapsed since he last wrote, but he knows nothing of the intervening time—hence the repetition of some things found in our remarks in Nos. 1 and 2 of the Weekly BEE JOURNAL. With his active brain and ready intellect, he will very soon grasp the whole, and catch up.

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☞ "Can I put in my advertisement once each month and reach all the readers of the BEE JOURNAL?" This is a question that is asked by several. Of course you can. The first issue in every month goes to every subscriber—monthly, semi-monthly and weekly. But as 19 out of every 20 of all our subscribers take the weekly, it is a matter of small moment which week an advertisement is inserted. Those who are too poor to take a weekly, or those who are not enough interested in the art to get and read it, will not benefit an advertiser very much. Advertisements may be inserted every other week, or once a month, or weekly, as desired.

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☞ We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

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☞ Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

AMONG OUR EXCHANGES

Food Adulteration.—The *Rural New Yorker*, remarks as follows upon the subject:

The adulteration of food, condiments and beverages, has become an immense business from which some people derive very respectable profits.

Many people would not seriously object to eating oleomargarine, knowing it to be such, but they do object to eating it for butter. When sold as oleomargarine it is well enough, for when properly manufactured it is much more wholesome and nutritious than poor butter.

Pulverized sugar has many properties that would not make it "half so sweet" if we knew what they were. The presence of certain acids is necessary in order to correct the dull, yellow color of the cane sugar, and glucose is now largely used in sugar manufacture; so largely, indeed, in one instance that it is said a single firm in one year realized as profits $1,000,000 on a capital of $400,000. Glucose syrup mixed with low grade molasses makes an excellent golden syrup, which sells well in market, or when allowed to harden it can be ground up and mixed with low-grade dark-brown sugar, and a substance results having the appearance of a refined, light-brown sugar, though not quite as sweet.

And so we might go on through the list, finding in confectionery almost every metalic poison known to science; in coffee, various quantities of chicory and other substances; in certain teas, 35 per cent. of poisonous substances; in pickles, blue vitriol and alum; in pepper, mustard husks, etc., to the extent in an extreme case, of 98 pounds to 2 pounds of pure pepper, and in vinegar corrosive sublimate was found. It is gratifying to know that, in some sections of the country, not only individuals but corporations are becoming thoroughly awakened to this kind of fraud and imposition, and are waging an unrelenting warfare against it, and we trust that at no distant day such preventive means will be used as that no article shall be sold, in quantities large or small, under any other name than its proper one.

Local Convention Directory.

1881. *Time and Place of Meeting.*

March 12—Mills Co., Iowa, at Glenwood, Iowa.
April 2—S. W. Iowa, at Corning, Iowa.
5—Central Kentucky, at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
7—N. W. Ohio, at Delta, Ohio.
13—N. W. Missouri, at St. Joseph, Mo.
D. G. Parker, Pres., St. Joseph, Mo.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 18 —Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

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☞ The next meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held at H. W. Lee's, 2 miles n.w. of Pecatonica, Winnebago county, Ills., on the 17th of May, 1881. J. STEWART, *Sec.*

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☞ On account of unfavorable weather the convention at Monroe Centre, Ill., met on Feb. 8, and there being but few present, adjourned to the same place on March 29, 1881.

A. RICE, *Pres.*

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PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

SELECTIONS FROM OUR LETTER BOX

Foul Brood, etc.—When the first No. of the Weekly was received I was pretty nearly disgusted with it, for I had taken it so long in the old form that I did not like its shape "one bit," but have become accustomed to it now, and look rather anxiously for its weekly appearance. I at first wondered what a weekly BEE JOURNAL would do for bee literature of a high character, but I wonder no longer, and I believe it is constantly improving. I am sure I am not the only one that is glad that the "unpleasantness" with the N. E. Convention has been arranged to the satisfaction of all concerned, and hope that you will, in the future, so "mutilate" all personal articles that their sharp edges won't hurt any one. Am glad to see that the bee-keepers are waking up to the importance of that terrible disease, foul brood. Judging from what I know, this region is badly affected by it, and hope by another winter that the bee-keepers in this state will be prepared to see that a bill is passed by our legislature for its suppression. I expect to have the pleasure of showing friend Muth around to see the foul brood in this region as soon as the weather is warm enough, and then perhaps you will hear more about it from him. My own bees are, as yet, free from it, and wintering with very little loss. Success to the BEE JOURNAL.

A. B. MASON.

Toledo, O., Feb. 21, 1881.

An Excellent Crop.—I started with 50 colonies of black bees last spring; increased them to 110, and obtained 125 lbs. of wax and 11,400 lbs. of honey; 10,000 of it being extracted; the balance of it is comb honey cut from Langstroth frames, and put into cans. The honey in this county is nearly all sold, average price 10 1-3 cents per lb.

P. LOUCKS.

Fresno, Cal., Feb. 14, 1881.

[Mr. Loucks certainly has made an excellent report. Over 200 lbs. of honey to each colony in the spring, and more than doubled in numbers is good enough to satisfy almost any one. We would like to hear further particulars of Mr. L.'s management.—ED.]

Bees Wintering Well.—Bees are wintering very well in this section, even better than usual, although we have had the coldest winter and more of it, than ever experienced in this latitude before. Success to the Weekly AMERICAN BEE JOURNAL. Long may it and its editor live, to give us weekly gleanings from the various parts of the globe.

J. S. TADLOCK.

Kingsbury, Texas, Feb. 3, 1881.

Hope Departing.—'Tis said that misery loves company; we are not philosopher enough to let ourselves down from high hope to low despair without a great deal of jolting. Our bees have been confined 102 days. During the fore part of last week, hope ran high. True, it snowed, rained, sleeted and about every thing it could, still the snow was gradually going, and we were becoming cheerful. Friday the wind set in briskly from the east, and by evening a genuine blizzard was upon us from the n. e. and shifting to the n. w. we got the grandest snow storm for 23 hours we have had for years. The cars are completely blockaded, no trains since the 11th inst. Bees are from 2 to 6 feet under the snow, and hourly growing more uneasy. We have made it a point to keep them shoveled out; but I shall now have to abandon that; for there is no longer anywhere to put the snow. My bees are all strong, but a majority of them have soiled the entrance more or less, and will perish in consequence of the entrance becoming clogged and the combs breaking down, thereby drowning the bees. The best success I ever had in wintering was last year, and in spite of the poor summer they averaged 56 lbs. each, and 46 per cent. increase. If Vennor takes away our snow this month, according to contract, I will give him leave to draw upon me for 1 bbl. white clover honey next fall.

J. N. MCCOLM.

Plymouth, Wis., Feb. 14, 1881.

Ventilation.—I am wintering 90 colonies in the cellar and 7 out of doors; all are living, but some in the cellar are getting uneasy. I gave then a small hard snow ball on the top to leak in for water. Mr. Thomas gave the idea in the JOURNAL that it was a good plan in long confinement, but I can tell better after a trial. Mrs. Dawson has lost all her bees; they had no ventilation at the top; the frost accumulated so that water ran on the combs, and the bees drank the water instead of the honey, and when broken open they found ice in the honey-sacs instead of honey, and says that was the cause of death, and you know what a woman can't find out it is no use for man to look after.

L. POINDEXTER.

Kenny, Ills., Feb 21, 1881.

Bees and Bloom.—MR. EDITOR: You misunderstood the first sentence in my letter, published on page 52. I had reference to articles written for, and published in the JOURNAL. I have always found the AMERICAN BEE JOURNAL ready to encourage everything that tends to the advancement of apiculture in America, and I think, Mr. Editor, you deserve the thanks of all apiarists for your untiring efforts in their behalf. I was much interested in your remarks about growing the flowers to the requirements of the bees. I will give my views in regard to this matter in a future number of the JOURNAL, if desired.

Coleraine, Mass. E. A. THOMAS.

[We shall be pleased to have you do so at an early day, to enable spring experiments.—ED.]

Bees Doing Well.—The past season was very poor for honey here, still we had about as many colonies as usual. Bees that have been properly packed on summer stands are doing well, but those that have been left to take care of themselves have nearly all gone the way of all the earth. I am more than pleased with the present appearance of your JOURNAL.

A. H. CLAUS.

Rushford, Ill., Feb. 22, 1881.

Albinos and Losses.—There will be a great loss of bees this winter through this section of country. I have lost 5 colonies; among them was one Albino queen that I thought to breed a little extra from the coming season. From a colony of Italian bees which my brother bought 16 or 17 years ago, we reared queens, some of which produced part Albino workers. It is possible from some of these escaping to the mountains, originated the first Albino bees brought to the notice of the public. One thing I am certain of: from a queen reared and sold by me to Mr. Valentine, originated the finest Albino bees in this state. This queen was bred from a strain of Italians we got from Argo, which, in speaking of, we called the Argo stock, (mentioned by Valentine in the Jan. number of the *Bee-keepers' Magazine*), and mated with drones reared from a queen producing part Albino workers.

J. M. C. TAYLOR.

Lewistown, Md., Feb. 9, 1881.

Bees Dying.—The BEE JOURNAL is more than I ever expected it woubd be in weekly form; it is one of the most useful publications on bee culture, I think, either in the U. S. or Europe. Bees continue to die here very fast. The frame hives were prepared in the following manner: in Oct. the honey boards were removed from the tops of the frames, and in their place was put a nice clean piece of woolen felt blanket, just covering the tops of the frames; on this woolen blanket was put 6 inches of clean wheat chaff, after first putting the cap on. On each side of the cap near the top was a ¾ inch hole, for a free circulation of air, on the north and west sides was a tight board fence, to protect the hives from the wind. The hives were about 8 inches from the ground, and entrance contracted so that but 2 or 3 bees could get out at a time. Now after all this fixing, they die very fast, and worse than anything I ever saw so early.

D. W. FLETCHER.

Lansingville, N. Y., Jan. 25, 1881.

Come at last.—The long-looked-for time has come at last, when my bees could take a good fly. To-day is the first time my bees have had a good fly since Nov. 5. Bees that were left unprotected are nearly all dead. Some have lost all. My way of wintering is to pack with chaff on the summer stands. Some that I did not pack before cold weather set in appeared to suffer as much as those left unprotected; those that were packed early, appear to be wintering nicely. I am very much pleased with the BEE JOURNAL. I could not afford to do without ii. I think a person keeping but one colony of bees would be greatly benefitted by reading it.

FRANK MCCOY.

Van Wert, O., Feb. 22, 1881.

Queen Fertilization.—Dr. Love seems to doubt my statement in regard to queens, &c.; as he is favored with a warm climate, he will have an opportunity of testing his proposed plan. Let him test, then report. Not being a medical man, I pass his analysis by. Nine-tenths of all the bees in this locality have perished by dysentery. For the first time since Nov. my bees had a flight on the 30th of Jan. I have lost 25 colonies, but there is one consolation, almost every one of them left a rich estate to administer on.

M. B.

Fincastle, Ind., Feb. 1, 1881.

Wintering Well.—My bees are wintering nicely. They are packed in chaff on the summer stands. They had a splendid fly yesterday. I wish the Weekly much success.

T. W. COLBERT.

Smith's Valley, Ind., Feb. 23, 1881.

An English Opinion.—I much admire the energy and enterprise of Americans in apiarian matters, and think they have a powerful exponent in the BEE JOURNAL.

F. R. JACKSON.

London, England, Feb. 12, 1881.

Foul Brood Cure.—By using bromo chloralum, J. M. Blanchard, of Delphos, Kan., effected a complete cure of Foul Brood in its worst form. The mixture as used by him, was 1 part bromo chloralum, 10 parts water; applied in the usual way.

M. BLANCHARD.

Sherwood, Wis., Feb. 14, 1881.

Bees all Right.—Those bees that were in good condition in the fall, and placed in comfortable winter quarters, are now all right. My wife had 11 colonies last spring, increased to 18; Italianized most of them and obtained 500 lbs. of comb honey in sections, but I am bereaved—my wife is no more. She was weakly, and in search of health studied bee culture, and by the aid of the BEE JOURNAL, she was very successful. Now I am in charge of the bees, and though sad over the loss of my wife, I shall try to be as successful as she was.

F. J. STICH.

Macon, Ill., Feb. 3, 1881.

Notes from Otley, Iowa.—I must express my pleasure at the change of the AMERICAN BEE JOURNAL to a weekly. It is excellent. I await its coming as of an old friend. It is just what we who are engaged in bee culture have long felt the need of. Mr. Young, of Monroe, Iowa, in a letter says: "I still receive the JOURNAL in the form of a weekly, and admire the change very much." We are having a very cold winter. I should think that the ground had been covered with snow for 8 or 9 weeks, with good prospects for its continuing so for some time yet. I think the several methods of wintering bees will be put to the test this winter. My bees are stored away in the cellar where they are warm and dry. I think that I should not deserve to succeed in the business did I have them on their summer stands nearly or wholly unprotected as some have. The other day I presented a friend (who has a few colonies of bees in the above condition), with a copy of the JOURNAL to read; he said that he did not care to read it, as he was busy, his bees were dying, and he was becoming disgusted with the business. I did not think this strange. I think I should be about like him, under similar circumstances. Had he been a reader of your valuable JOURNAL, and practiced its teachings, I think no doubt he would have saved several times its cost during the present winter. Success to the JOURNAL.

W. C. NUTT.

Otley, Iowa, Feb. 5, 1881.

Bees all Dead.—There is not a live bee in all this county. Out of thousands of colonies I have heard from, not one is alive. Regardless of packing, putting away in cellar, or any other plan of keeping, nearly all die, with plenty of honey in reach, and in my case they had bee candy. The long confinement and cold weather, with not a first rate quality of honey to winter on, has been the trouble.

J. F. CARVER.

Greencastle, Ind., Feb. 12, 1881.

Errata.—On page 573 of the Dec. No. of the BEE JOURNAL, in the communication by L. H. Pammel, Jr., the 11th and 12th line from the bottom of the 2d column, reads "Hoarhound (*Salvia officinalis*), one of the mint family." Salvia officinalis is the scientific name of the common sage. That of Hoarhound is *Marrubium vulgare*. On page 580, in my report of Nov. 6, in the three last lines, it reads: "all are covered with pieces of rag carpet over the Novice cushion, with cover removed." Cushion should read bee-mat; the mats are made of thin pieces of wood woven together with twine. There would be no sense in putting carpeting over Novice's cushion. Success to the Weekly BEE JOURNAL.

J. CHAPMAN.

Home, Mich.

Shade for Bees.—I have 18 colonies left, out of 31 that were packed on the summer stands; those that are left seem to be in good condition. Nine-tenths of the bees in this locality are now dead. I know several who have lost all they had; some kept as many as 35 colonies; neglect, bad honey and cold weather being the cause. Had the poor honey been extracted, and the bees allowed nothing but sealed honey, and been packed in chaff on their summer stands, losses would not have been half as heavy. I gave sun-flowers a fair trial last spring. For shading I planted two plants to each hive; south and west (hives facing east.) As the season advanced, the plants grew very fast, and when the heated term came, I had a grand shade, decked with beautiful bloom. I think the Weekly BEE JOURNAL one of the grandest productions of the age.

J. H. THORNBURG.

Winchester, Ind.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 18@20c. for strictly choice white comb in 1 and 2 lb. boxes; at 14@16c. for fair to good in large packages, and at 10@12c. for common dark-colored and broken lots.—*Chicago Times.*

BEESWAX.—Choice yellow, 20@24c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 17@18c.; fair do., 15@16c.; dark do., 12@13; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 80@85c.

BEESWAX.—Prime quality, 20@23c.

CINCINNATI.

HONEY.—The market for extracted clover honey is very good, and in demand at 11c. for the best, and 8@9c. for basswood and dark honey. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@24c. C. F. MUTH.

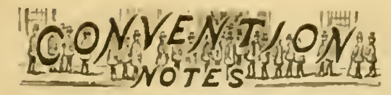
SAN FRANCISCO.

HONEY.—We quote comb 12@15c. Extracted, choice white, 6½@7c.; offcolors, 6@6½c.

BEESWAX—22@23c., as to color.

STEARNS & SMITH, 423 Front Street.

☞ "What is the meaning of 'Dec. 81' after my name on the direction-label of my paper?" This question has been asked by several, and to save answering each one, let us here say: It means that you have paid for the full year, or until "Dec. 31, 1881." "June 81" means that the first half of the year is paid for, up to "July 1st." Any other month, the same.



North-Eastern Convention.

THIRD DAY.

Convened at 9 a.m., Vice Pres. Doolittle in the chair. After the reading of the minutes, a discussion ensued on Mr. Detwiler's essay, read the first day, and the discussion following it, and it was unanimously agreed that as the controversy was not within the bounds of this Association, (New York and the Eastern States), that the whole matter be omitted from the minutes entirely, and not to be allowed to be again brought before the Association.

CYPRIAN BEES.

J. H. Nellis read a paper by Julius Hoffmann, of Fort Plain, on "The different races of bees and their crosses." He believed a cross between the Italian and Cyprian bees to be the best. In cross breeding we should consider the drones as of as much importance as the queens, and it will be found that drones are even better for transmitting certain qualities than queens. Mr. Nellis said he had black, Italian and Cyprian bees. The Cyprian is anything but a desirable bee. It is very cross and has no special merit for honey gathering.

Mr. Root said Mr. Hoffman understood his business, and has made as good reports for years past as almost any other bee-keeper. Cyprian bees are desirable for their continuous breeding, which is almost miraculous. They continue breeding till late in the fall. Italians leave less air between the honey and the cappings of the cells. People who live in buckwheat sections will find black bees superior to Italians for gathering dark honey.

Mr. House said Italian bees would gather honey from buckwheat when they could get no other, and could get more than black bees.

Mr. Rians said he had between 50 and 60 queens crossed between Italians and Cyprians. They were very prolific and gathered honey late in the fall.

Mr. Betsinger favored the Cyprian bees because they were prolific. It is harder to produce bees than it is to reduce the number after they have been produced. That the Cyprians sting more, is in their favor, as they keep away other bees.

Mr. Scofield had found the Cyprians to breed very late in the fall.

Mr. Beebe said he could not see much difference between Italians and Cyprians as to their crossness. Cyprians bred very late in the fall.

Mr. Root said Italians were less liable to sting than natives, if properly handled. He hoped the same would prove true of the Cyprians.

Pres. Doolittle said Italians did not breed late enough in the fall. He thought the breed could be improved in this respect by crossing with the Cyprians.

PURE HONEY.

The Secretary read a letter from Capt. J. E. Hetherington, of Cherry Valley, who wrote:

Our industry in the future will have to be made profitable to a great extent through the sale of extracted honey, and that the sale will be made in small packages, and mostly in winter in a candied condition. If so, some means will have to be taken to overcome the prejudice against it in the interest of dealers who mix glucose with it. I am informed that consumers, particularly in the Eastern States, have been constantly told that proof that the mixture they sell is pure, lies in the fact that it does not get hard or candied; that pure honey never gets hard. I have often thought that some little statement covering the fact that pure honey does become candied, printed on our labels, would help the sale of candied honey, and if this could come by authority of your body, it would have more weight. The following would answer the purpose, and bee-keepers could use it or not, as they like:

Whereas, Venders of adulterated articles of honey generally mixed with glucose, have constantly impressed consumers with the idea that hard or candied honey is impure by reason of this quality, we the members of the North-Eastern Bee-Keepers Association, in convention assembled, do assure all consumers that pure honey exposed to cold, will, in a few weeks become candied, and that we consider this feature certain proof of its purity.

Mr. Nellis thought the association would act wisely in adopting a standard of purity. He favored the adoption of the resolution.

Mr. House said pure honey exposed to cold for four or five weeks, would become granulated or candied.

Mr. Betsinger said the reason for granulation was not cold but moisture. The moisture was caused by the cold.

Mr. Bacon said it was time that every housewife knew that it was the pure honey which granulated in cold weather, and adulterated honey which did not granulate. Granulated honey could be restored to its original state by heating.

Mr. Root offered the following on the purity of honey, which was adopted:

Whereas, The production and sale of honey in liquid form, thrown from the comb by centrifugal force, called extracting, free from all impurities, is of great interest both to bee-keepers, dealers and consumers, therefore be it

Resolved, That we fix as a standard of purity that all liquid honey will granulate, candy or become hard at the approach of cold weather, and that this quality is a sure indication of its purity, and we desire to inform the public that all that is necessary to restore this honey to liquid condition as when gathered from the flowers is to subject it to gentle heat, by placing the vessel containing the honey in warm water, not heating it above 120° Fahrenheit.

Secretary G. W. House read an essay on the subject: "How can we make the apiary the most profitable?"

Mr. Reed thought more attention should be paid to raising honey producing plants and preserving basswood.

A belated paper on wintering bees, by H. H. Flick was read by Mr. Nellis.

L. C. Root was appointed on the committee on prize essays, to fill the vacancy caused by Mr. Bacon going home.

Mr. Root said it was surprising to him that intelligent bee-keepers should object to the trouble of carrying bees in and out of doors in winter. The trouble was of little importance compared with the saving.

Mr. Nellis offered a form of petition to be forwarded to the different members of the legislature asking for the passage of the law to prevent adulteration of honey and cane sweets, which after discussion, was adopted.

We the undersigned, residents of the —— assembly district of the state of New York, being informed that a bill is now before the legislature for the prevention of the adulteration of sugar, syrups, molasses, honey, and similar sweets, now, therefore, we, the undersigned, heartily approve of such a measure, and respectfully urge the passage of any law that will tend to restrict such adulteration and punish the offenders. We fully appreciate that such adulterations destroy the tone of legitimate production and ruin the health of consumers; therefore, we as producers and consumers of sweets pray that you give the subject earnest attention and enact such laws as shall compel the adulterators of wholesome sweets with corn sugar and glucose to label the spurious articles with their true names, and not to deceive the consuming public by selling the poisonous adulterations under the guise of the genuine articles.

AFTERNOON SESSION.

The report of the committee on question drawer was first taken up. In reply to one of the questions, Mr. Root moved that this convention considers light detrimental to successful wintering; adopted. The questions and answers are given below.

In this climate do we have weather cold enough to freeze bees, provided they have honey in the hive to which they have access? No.

Is the side box system a success? Yes, by two; no, by one.

Is a wired foundation a success when used for a brood chamber? No, by two.

Is is advisable to use full sized sheets in brood chamber? Yes.

Which is preferable, a hive without bottom, or bottom fastened to hive? Bottom fastened to hive.

Is comb foundation 6 months or a year old accepted by the bees as readily as that just made? No.

What amount of surplus room for box honey is it advisable to give a colony at one time? What the colony requires.

What is the best method of getting bees started in surplus boxes? Fill the boxes with comb.

Would you recommend full sheets of foundation for surplus boxes? One for "full sheets;" two for "starters."

Which it the best, natural starters or foundation? Natural starters.

What objection is there to a centre bar in the brood chamber? Does it not make a better winter communication than boring holes through the combs? No center bar needed.

What is the best quilt for wintering? Anything porous.

What is the most convenient arrangement for side cases? "Our own," by two; no side boxes wanted by one.

Will it pay to construct an inner box just large enough to hold combs to winter 6 Langstroth or 5 Quinby frames, that will set into the main hive, the object being to carry just what is needed to the cellar, instead of the main hive? they can also be used for nucleus hives in summer. No.

What extractor is best for the beginner to use? A. I. Root's for honey; Swiss extractor for wax.

What time of year is it best to purchase queens when you have all natives and want to change to Italians? Any time you have the money.

Is it objectionable for bees to breed in winter, say February? No breeding necessary till spring.

Are bees more inclined to supercede clipped queens than queens not clipped? No.

Can bee-keeping be made profitable in a locality minus basswood, with plenty of white clover, alsike, golden rod and buckwheat? Yes.

The quality of wax and weight of foundation being equal, which is preferable for use in surplus boxes, flat bottomed or lozenge shaped bottomed foundation? Bottoms as the bees build them.

Would it be advisable to take a colony of bees known to be short of honey, into the house in a room without fire, giving them supplies till they are quiet, and then putting them in their summer stands for the rest of the winter? Be sure all have honey in the fall.

AWARD OF PRIZES.

Mr. Bosworth, from the committee on implements, reported the prizes awarded as follows:

Most practical bee hive awarded to J. H. Nellis.

Best smoker, awarded the "New Quinby," made by L. C. Root & Bro.

Best honey crate and boxes, awarded to A. E. Manum, Bristol, Vt.

Best crate honey, to S. Snow, Fayetteville, N. Y.

Best package of extracted honey, awarded to L. C. Root & Bro.

Best display of apiarian implements, awarded to J. H. Nellis.

Best comb foundation for the surplus boxes, is awarded to the "Vandervoort foundation," exhibited by J. H. Nellis.

Best comb foundation for the brood chamber, awarded to the "Dunham foundation," shown by C. Dadant & Son.

All the other kinds are in close competition, and are a credit to the inventors and manufacturers of the same.

Your committee also find articles on exhibition, and call attentionto them.

Bee feeders exhibited by L. C. Root & Bro., A. E. Manum and J. H. Nellis, all worthy of merit, especially the Van Deusen feeder.

A machine for fastening comb foundation in surplus boxes, by W. H. Mallory.

Peet's combination queen cage, by J. H. Nellis.

A nest of honey pails by Charles Dadant & Son.

Honey knives and Cheshire rakes for supporting comb foundation while being built out in the brood frames, exhibited by I. L. Schofield.

W. V. Bosworth, F. H. Cyrenus, O. Dines, Com.

The Secretary offered the following, which was adopted:

Resolved, That the thanks of this association are due, and are hereby tendered to the representative of the Utica Morning Herald for the very complete report of our proceedings as published in that paper, and for other courtesies shown us.

The Secretary asked what should be done about prizes for essays next year.

President Doolittle said the medals had brought in essays, but it had shortened the time for debate.

Mr. Nellis thought offering prizes for essays and implements were progessive. The matter was discussed without action, the sublect being left with the executive committee.

PRIZE ESSAYS.

Mr. Doolittle, from the committee on prize essay, reported awarding the gold medals and premiums as follows:

Gold medals for best essays: "The different races of bees and their crosses," J. Hoffman, Fort Plain, N. Y.; "How can we make the apiary most profitable," George W. House, Fayetteville, N. Y.; "Wintering Bees," Chas. Dadant, Hamilton, Ills.; "Marketing Honey," C. P. Dadant, Hamilton, Ills.

Cyprian queen offered by L. C. Root for the best essay on any other subject, awarded to W. A. House, Fayetteville, N. Y., for his essay on "Foul Brood."

SEPARATORS.

Mr. Nellis asked, had any one had any experience with perforated separators.

Mr. Snow said a year ago he had used perforated wooden separators, and he found perforated wooden separators were better than tin ones. This season he had replaced his glass and tin separators with with wood. In some cases the bees worked a little faster when wood separators were used.

Mr. Rians said some of the bee-keepers of his section claimed that they got whiter honey with wood separators than with tin, the bees clustering on the wood where they would not on tin.

Mr. Scofield said the warmth of wood was preferred by the bees to tin or glass.

Mr. Betsinger said he had used wooden separators some years ago, and his neighbor had tried and abandoned them because he found that bees made many more bars on the wooden separators than on the tin.

Mr. Doolittle said he had used perforated separators, but came to the conclusion that the cost and trouble did not pay; he therefore abandoned them. He used tin separators, not perforated.

Mr. Root said the reason of fastening combs to the side might be due to the weather and atmosphere, and not be due to the fact whether the separator was wood or tin He had tested wood and tin side by side many times. By using separators of wood the entrances were spread and made larger. The advantage is that the bees will store honey more readily.

Mr. Snow said that in using tin separators he was obliged to put them within ¼ inch of the bottom of the boxes, which was about right. By using wooden separators he got his boxes full of bees sooner.

Mr. Root said he had no doubt you could not, by offering Capt. Hetherington $500 a year, induce him to use entrances less than ¾ of an inch wide.

Mr. Doolittle said his experience was contrary to that of Mr. Root. He did not see the advantage of a larger entrance. To experiment he took the bottoms entirely off, and saw no difference between those with the bottoms entirely off and those with the ¼ inch opening he commonly used.

The convention then adjourned.

Barren County, Ky., Convention.

The Bee-keepers of this county met at Walnut Hill, Ky., Feb, 12th, for the purpose of organizing a county bee-keepers' society. H. C. Davis stated the object of the meeting, after which Dr. N. P. Allen was called to the chair, and J. M. Holman made secretary, *pro tem*.

On motion, the chair appointed the following committees: J. T. Gray, I. N. Greer, H. C. Davis and J. M. Holman, to draft constitution and by-laws, which, on motion, were adopted and the committee discharged.

The convention then elected the following officers for the ensuing year: I. N. Greer, *President*, J. T. Gray, *Vice President*, and J. M. Holman, *Secretary*.

On motion, the president appointed the following committee to select questions for discussion: J. T. Gray, H. C. Davis and D. W. Hodge; after which the meeting adjourned.

At 1 p. m. the president called the convention to order. The committee on questions reported a programme, which was adopted.

WINTERING BEES.

J. T. Gray recommends putting bees in the lower story, covering them with a quilt, filling the top story with old clothes or rags, well covering the hive with straw.

H. C. Davis put his bees in the lower story, put a quilt on, with old clothes or rags in top story; set them on a platform, six inches apart, with plank on west side, 8 inches from hive, with grass packed around and under the hive, except the entrance, which faces east; then cover with boards for shelter.

N. P. Allen approved the plans recommended by Gray and Davis, only he did not like the plan of moving bees to a platform, but prefers them to remain on the summer stands, with chaff cushions as absorbents; he said the cushions were convenient, and kept the bees dry and warm, and that it was important to put them down in the lower story early in the fall, give them plenty of stores, and arrange the combs so as to have the ones partially filled, in the centre of the hive for the bees to cluster on.

BEST PLAN OF BUILDING UP IN SPRING.

H. C. Davis built up weak colonies by feeding sugar syrup and wheat or rye flour, unbolted.

I. N. Greer said he united weak colonies, and fed honey.

N. P. Allen said very weak colonies should be united and fed on sugar sryup, honey or candy, as the season advanced; he would build up the weakest by taking brood from the stronger colonies. He spread the brood and put combs in the centre of the brood nest, until the lower story was full of brood; continue feeding until honey was abundant in the flowers, and thus raise a large army of bees to gather the harvest when it came.

Dr. N. P. Allen was made an honorary member.

The following resolution was adopted: *Resolved*, By the Barren county bee-keepers, in convention assembled, that the thanks of this society be tendered Dr. N. P. Allen, President of the North American Bee-keepers' Society, for his presence and able advice while we were organizing.

Resolved, That the thanks of this Society be tendered the ladies of Walnut Hill and vicinity, for the sumptuous dinner furnished on the ground.

On motion, the president appointed H. C. Davis, J. T. Gray and D. W. Hodge a committee to select subjects for discussion at the next meeting, whereupon the committee reported the following: 1st—Which is the best method of increase,—division of colonies or natural swarming? 2d—Which is the most profitable, extracted or comb honey? 3d—The best method of marketing honey?

On motion, the secretary was instructed to have the proceedings of this meeting published in the *Glasgow Times* and the AMERICAN BEE JOURNAL.

Adjourned to meet at this place April 15th, 1881, at 10 o'clock a.m.

I. N. GREER, *Pres.*
J. M. HOLMAN, *Sec'y.*

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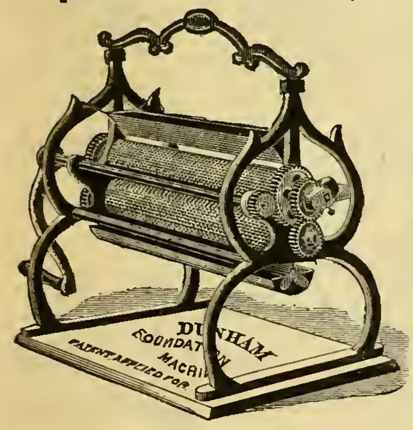

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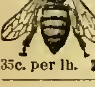

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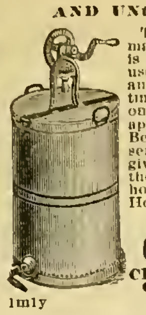

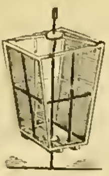

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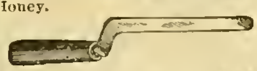

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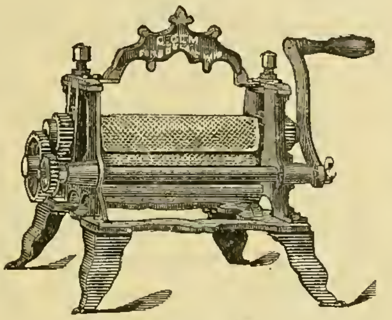

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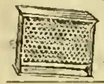

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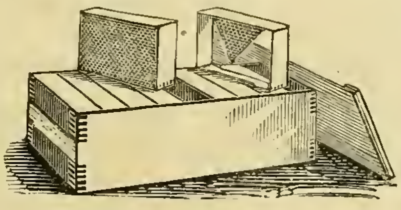

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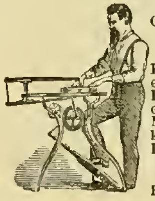

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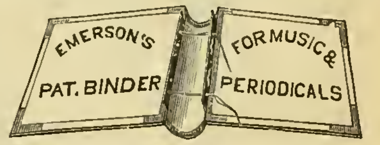

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J. H. GREGORY'S SEED CATALOGUE. Mr. Gregory's Catalogue (advertised in our columns), opens with several fine engravings of new vegetables, after which follows an immense variety of flower and vegetable seed, including 47 kinds of Beans, 23 of Beet, 54 of Cabbage and Cauliflower, 26 of Corn, 28 of Cucumber, 28 of Lettuce, 41 of Melon, 17 of Squash, 24 of Tomato, 36 of Turnip, &c., &c., all duly described. Catalogues are advertised free to all.

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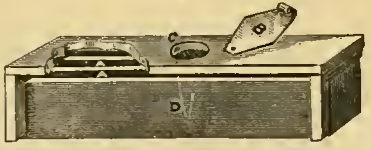

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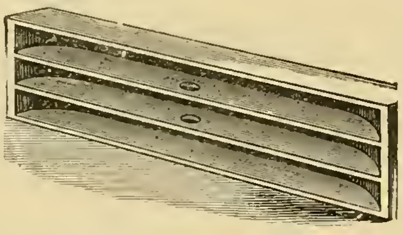

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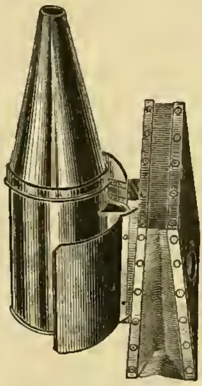

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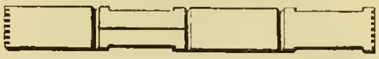

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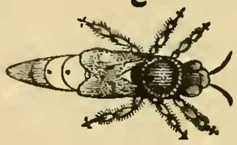
1881.



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9m6t **Dr. J. P. H. BROWN,** Augusta, Ga.

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ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., MARCH 9, 1881. No. 10.

THE AMERICAN BEE JOURNAL

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THOMAS G. NEWMAN,

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CORRESPONDENCE.

For the American Bee Journal.

Do Bees Injure Grapes?

U. E. DODGE.

There seems to be quite a spirited discussion going on in horticultural circles in this part of the country, in regard to the above question, some taking the ground that the bees puncture the skin of the grape, and from the opening draw the juice and appropriate its sweets to their own use; others, that wasps are the first transgressors, and puncture the skin of the grape with their stings, and the bees follow and suck the much-prized fluid from the openings thus made.

Now, being something of an apiarist in a small way, and a grape-grower and market-gardener quite extensively, I naturally feel a deep interest in this question, and if the annoyance continues (*i. e.*, the destruction of grapes in this way in the same ratio it has for the last two or three years), either the grape-grower or the bee-keeper will have to retire from the contest. Being fully aware that your facilities for acquiring knowledge on all subjects appertaining to the bee and its habits, and ever ready to impart that information to the readers of your most exceellent JOURNAL, I should, as a grape-grower and apiarist, esteem it a favor if you put this question to the bee-keepers of America.

Prof. Cook, in his "Manual of the Apiary," page 50, tells us that the bee's jaws or mandibles are on either side, just below and at the side of the labrum or upper lip. These work sidewise, instead of up and down as in higher animals, are frequently very hard and sharp and sometimes armed with one or more teeth. Now, this is the same general construction of many of our leaf-eating and vegetable-destroying insects.

Although the nectar of the flowers may be the natural food of the bee and her delght to gather and store, may she not in times of scarcity or total failure of nectar in the flowers, with her industrious habits of utilizing every shining hour, and being provided with such facilities, be tempted to vary somewhat from her natural propensities and encroach a little upon other interests? Our grapes, in all the grape-growing regions of this part of the country, were very badly injured the past season, and our pets of the hive have incurred the prejudice of the grape-growers against them, especially of those who do not keep bees.

As a grape-grower and lover and admirer of the honey bee, and almost an enthusiast upon its habits of industry and economy, I would not be willing to say a single word against it unjustly, yet I must say that I investigated this subject closely last season, for I was receiving severe injury from this cause, and I saw motions and actions that justify me in saying that I think the bee is the principal actor in this work of destruction, and punctures the fruit by a saw-like motion of the head and body, a chafing or rasping motion which ruptures the skin of the grape, and accomplishes the purpose, namely, the skin is ruptured sufficient for them to sip the juices from the interior of the fruit, which is spoiled; it also destroys the market value, and increases the labor in the preparation of the fruit left untouched upon the clusters.

Another thing leads me to this conclusion: the absence of almost all other insects at that season of the year (September and October), the most of the insects having gone into a semi-torpid state. Almost all our fruit and vegetable insects do their greatest injury in the earlier part of the season, and in the later months are spun up in their cocoons and numerous other protections for winter, ready to emerge in early spring, when warmed by the genial rays of the sun, to prey upon the early and tender vegetation, live a life of luxury and gluttony, return again by their progeny to the torpid state, and year after year pass through the rigors of winter, generation succeeding generation with scarcely a variation.

The wasp theory I cannot believe, from the fact that I do not find one wasp to thousands of bees, and if I did, I would be loth to believe, without occular proof, that they accomplished injury by the sting, for they are possessed of a poison sack, and the mechanical action in stinging is the same which forces the poison through the sting into the object stung, and it is not reasonable to suppose that the wasp would turn around and sip its own venom with a relish, or that bees would follow up and gorge themselves with this poisonous mixture.

With the Weekly BEE JOURNAL I am highly pleased. Prof. Cook's "Manual of the Apiary" I consider a very valuable addition to apiarian literature.

Fredonia, N. Y., Jan. 27, 1881.

[Mr. Dodge's point is well taken, in regard to the improbability of the puncture being made by the wasp with its sting. We have frequently seen the damage attributed to the sting of the wasp, but it seemed too unreasonble to deserve a refutation, though we do believe that, with its powerful feet and jaws, it is the author of much of the mischief. Prof. Cook, in his "Manual of the Apiary," page 219, refers to this matter, attributing the work to the jaws of the wasp.—ED.]

* * *

For the American Bee Journal.

A Fair Crop in a Poor Season.

J. W. PORTER.

The season was a poor one here, as in much of our broad country. Many apiaries in Va. produced no surplus, but in most cases it was the result of bad management. No prudent apiarist will neglect his bees, nor a prudent pomologist his trees, because the season is not to prove remunerative. Such a course leads to sure disaster. As I succeeded in securing a fair production in a poor season, it may prove ot interest to show how it was done.

Had I bought good queens for half of my hives that were nearly unproductive, or had I taken time to rear them, I would, doubtless, have largely increased my production.

Out of 78 colonies in March, I had only six natural swarms and made enough strong ones to keep the number 84, after doubling up six, I successfully prevented swarming by giving room, and building up weak colonies. As my whole surplus came from 50 colonies, it illustrates the waste by keeping unproductive queens.

While my best colony produced two strong natural swarms, April 29th and May 6th, the united products of which was 232 lbs., 168 lbs. of it in sections; very many produced no surplus. From the 50 I had 2400 lbs. in sections, and 600 lbs. of extracted, which was sold for $460. over freights and commissions.

The free use of comb foundation and rapid building up just before fruit bloom, was the secret of such success as I had. It proved to be a great help to have flat-bottom foundations built out in the brood chamber for the sections. Some of my bees built out two frames in a night, while others would not touch it, if left in for weeks. In every case the Dunham foundation was taken with avidity. It is surely a grand advance to furnish such foundation at the low rates at which it now is offered, but it surely indicates an era of lower prices for honey during our first good season, and we must be prepared for it.

I notice the size of sections is still discussed. Bees cannot make as much in $4\frac{1}{4}$x$4\frac{1}{4}$ as in larger. I found a decided difference in favor of the larger of the only two sizes I used, $4\frac{1}{4}$x$5\frac{2}{3}$ and 5x$5\frac{2}{3}$. It may be caused by the relative diminution of attached surface as well as by its allowing a larger force to work together. I use the smaller size to suspend in wide frames in the second story and can force bees into boxes to work in them. Cases above brood are preferable when bees will work that way.

I have tried many times, even with full comb sections, but never had the least success in side storing, as recommended by Mr. Doolittle. I have had them remain empty below, with a third story filled, while it was empty in a ten-frame Langstroth hive, that had filled several sections above. "Why is this thus?"

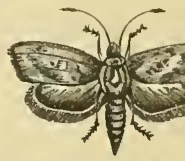
Charlottesville, Va., Feb. 7, 1881.

For the American Bee Journal.

Bees Destroyed by Worms.

G. M. DOOLITTLE.

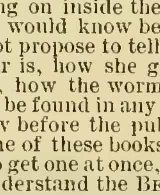
We often read something like this: "Five colonies were queenless, 3 starved and 2 were destroyed by worms." What are we to understand by colonies being destroyed by worms? As we can see no sense in the expression, and as such a statement tends to make the beginner fearful of loss of bees from the ravages of moth worms, we propose to say a few words on this subject, explaining the workings of the larvæ of the bee moth, and the only fear we need have of it.



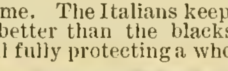
Bee Moth or Miller.

In the first place permit us to say, that expressions similar to the above come only from those who are careless or ignorant. From the careless, because they do not attend to their business as they should, so they do not discover that their bees are gone till the combs are destroyed by worms. From the ignorant, because if well posted in all that is going on inside the hive, at all times, they would know better.

We do not propose to tell here what a moth miller is, how she gets her eggs in the hive, how the worms look, etc., for this can be found in any of the books on bees now before the public. If you have not one of these books, our advice would be to get one at once, for you cannot well understand the BEE JOURNAL unless you know the first principles of bee-keeping. Of one thing we are certain, that if the combs are not occupied by bees, and have not been exposed to the cold as low as 15° above zero, when warm weather is the rule, we always find the larvæ of the wax moth upon them, and more abundant in those that have had brood in them. When once under headway, it takes but a short time to reduce the combs in a whole hive to a mass of webs. Now the worms cannot come into full possession of these combs as long as there are bees upon them, although we find here and there a worm that has eluded their vigilance for a time. The Italians keep them out much better than the blacks—a small handful fully protecting a whole hive of combs, the worms being kept in submission so long as the bees remain. If, from any cause, a colony becomes hope-



Male. Female.

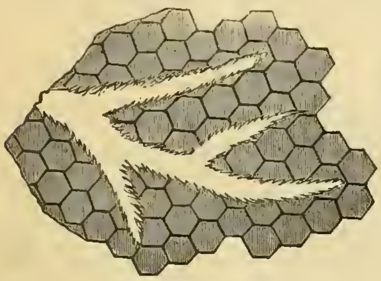


Larvæ of Bee Moth.

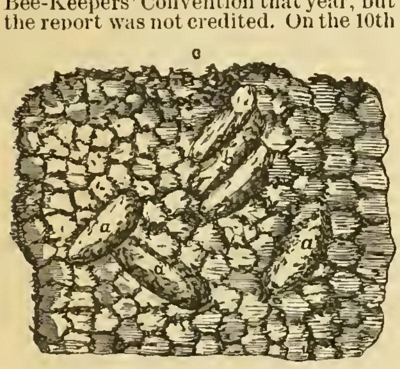
lessly queenless, the bees all die of old age in from 50 to 60 days from the time the last bee hatches, if in summer, and as soon as the bees are gone there is no restraint over the worms; thus they have full sway, and in a short time the combs are ruined.

Did the worms destroy the colony? Certainly not; the colony was destroyed by the loss of the queen, spring dwindling, or whatever the cause was, and the moths came in as an effect. Thus we see that to talk of worms destroying colonies of bees is nonsense.

It frequently happens that we lose a part of our bees in the spring, and wish to preserve the combs till the remainder of our bees increase to occupy them, for such combs are well worth preserving, even in these days of comb foundation. To keep them from being spoiled by the moth worms requires close watching, and all should be looked over as often as once a week, when warm weather comes. As soon as many worms are found, hang them in a small, close room, so the fumes of burning sulphur can penetrate all parts of them, and burn 1 pound to every 100 cubic feet contained in the room. To burn it, get a kettle, put some ashes in the bottom, put in a shovel of coals, and pour on your sulphur. Shut the door, and leave for 2 or 3 days. If kept from the moth miller it is rarely the case that they will need looking after again; still, we have sometimes had to sulphur again in a month or so.


Silk Tunnel of Bee Moth Larvæ.

One more Item: Quinby gave in "Bee-Keeping Explained," that a temperature of 18° above zero, or lower, would kill all life, eggs, etc., of the bee-moth. Four years ago we kept some combs in an out-house till February, and the mercury went as low as 15° below zero while they were there. Upon taking them to a warm room and working at them, we found 2 or 3 moth larvæ on our bench, crawling. We reported to that effect at the Northeastern Bee-Keepers' Convention that year, but the report was not credited. On the 10th of this month, when getting our bees ready to fly by clearing the entrances of dead bees, etc., we chanced to move the entrance blocks to a colony that stood in a bleak place so no snow had lodged around the hive this winter, when we found several moth larvæ which possessed as much life as ever, notwithstanding their cold nap. Thus we are led to conclude that the worms at a certain stage can stand any amount of freezing, for this winter would try their vitality if any would.



Comb showing Cocoons of Moths.

Borodino, N. Y., Feb. 25, 1881.

[We are indebted to Prof. Cook for the illustrations in the foregoing article, and which will be found, together with a very able treatise on the natural history and habits of the bee moth, in his "Manual of the Apiary," chapter xix., pages 262-267.—Ed.]

For the American Bee Journal

Do We Want the Truth?

REV. A. SALISBURY.

On page 29 of the Bee Journal for Jan. 26, 1881, I find an article from Mr. Boardman. I have no feeling in the matter, but will ask Mr. B. to refer to my article again; he will find that it opens as follows: "With the bee-keepers of this country it is yet no doubt an important question, whether we shall continue to import bees from Italy." Paragraph 4 reads as follows: "After this subject is thoroughly investigated, if found to be a step backward to drop the importation of Italian queens, let it be continued with great care, always to get the best Italy affords." Why? Because our American-Italians have been bred up to a high standard of excellence, and we want no "step backward," by importing inferior bees from Italy.

My sole object was to obtain good reasons, if there are any, why we should continue to import from Italy, and that, too, with a very small profit to those who bring them to this country.

My experience with Italian bees, after breeding them almost exclusively for 16 years, is that American-Italians are better honey-gatherers, and the queens and bees are more beautiful than I have been able to get from the last imported Italians, and I have always tried to get the best, irrespective of cost, having paid from $5 to $20 for them. I have made it a rule, where good qualities were developed by the introduction of new blood, to breed from the best.

Always demand the best, whether home-bred or imported bees, so that the supply dealer will not have to furnish "dark Italians," "leather-colored Italians," and "light-colored Italians"—in a word, all the shades that Italy can afford. Experience teaches that it is the favorable circumstances under which queens are bred, that largely develops beauty in color; and favorable circumstances also produce good qualities. So, we should never be alarmed when we get a queen very highly-colored, if she was bred from excellent stock.

Again, do we not run some risk of bringing foul brood from foreign shores? Is not this uncalled for, unless we are making advance in other directions? At home we can exchange bees with responsible men, and avoid all such risks. I know nothing of foul brood, only what I have read, but if we read it as it is, woe be to the man that gets it in his apiary. As the Cyprian bee is largely an untried bee in this country, but thought by leading European bee-keepers to be a superior bee, we willingly take risks for the sake of getting good qualities.

Camargo, Ill.

For the American Bee Journal.

The Practical Use of Foundation.

JOHN F. COWAN.

While I have been deeply interested in the discussions on the merits of comb foundation, and though many differ as to the best kind to use, yet I think its importance as a help in building up colonies, and in obtaining greater yields of honey, must be patent to every bee-keeper, providing its use can be made practical—*i. e.*, without sagging, breaking down, or killing brood by the improper use of wire.

For the past 2 seasons I have been experimenting with the various kinds in use, and have invariably found the Dunham foundation to have the advantage in being the most readily accepted by the bees. Concluding this (the Dunham) foundation to be the best, my next desire was for the best means of fastening it into the frames. I tried fastening it to the top-bars as recommended by Mrs. Dunham and others; I also tried wiring the frames, and pressing the wires into the wax by hand. In the former method I was troubled to some extent with sagging and falling down in the hive, but mostly in the use of the extractor, when the combs would break loose from the top-bar of the frame and often fall out.

By using the wires as above, I often found rows of empty cells, running parallel with and above the wires, and found this difficulty arising from the wires not being closely laid in the septum. As I could see no way of obviating the objections in either method, I had become discouraged and almost disgusted with the results, and had determined to abandon the use of foundation entirely, until last season, when my attention was called to the fact that Mr. Given had taken a new departure in the manner of introducing the wires, that is, pressing the foundation in wired frames by the use of a powerful press, which laid the foundation evenly in the septum in such a manner as to render the loss of brood impossible.

I purchased some of Mr. Given's wired foundation, and after giving it the most thorough tests, concluded that I had found the *ne plus ultra* in foundation. We have used in our apiary over 60 lbs. of Given wired foundation, and have yet to find the first larva either killed or removed from the cells. In conclusion, I will say that I consider the essential requisites to a practical and successful use of foundation to be a pure article, made from new wax, not lighter than 5 feet to the pound, with heavy side-walls and thin septum, secured in the frames in such a manner that it will neither sag, warp, nor break either in the hive or in using the extractor. It has been practically demonstrated to my satisfaction that these results can only be obtained by Mr. Given's method of introducing the wires; and if, by a happy combination, the Dunham foundation could be made and wired by the Given, or a similar process, the foundation controversy would be virtually ended.

Wellington, Ill., Feb. 10, 1881.

For the American Bee Journal.

The Treatment of Foul Brood.

E. W. FELTON.

In the spring of 1879 I commenced with 21 colonies, and in May, I spread the brood and put in empty combs, once in about two weeks, and in one case put in two empty ones at one time. In August, the one I put the two combs into was badly affected with foul brood, and I saw a few cells of it in 4 or 5 others. That year they had increased to 34 strong colonies. I commenced last spring with 31 colonies and doubled down to 26, and in May I found foul brood in every hive. They commenced to swarm about June 20th, when some of them had not more than 2 pounds of honey in the hive. I sold 5 and increased to 31; and on August 7th I boiled all of my empty hives, and shook 15 colonies into these hives, and put them into the cellar. I boiled those 15 hives, and on the 4th day I shook the other 16 into the clean hives and brought the others out of the cellar. I took what comb they had made, away from them, gave them whole sheets of foundation, and the 3rd day after, gave the others foundation. They appeared to be fair sized colonies when I shook them off; the day after I gave them the first foundation the apiary was as still as a grave-yard; there did not appear to be a dozen bees in sight at a time; 3 or 4 came out and clustered on the outside of the hives, and remained there from morning until night, and not a bee stirred, so I thought I would try feeding. I boiled some honey and made a tray 1½ by 3 feet, put in it 6 lbs. and put on a float, and when the bees found that, it was interesting to see them take it. They would take the 6 lbs. in 30 minutes. I fed them 80 lbs. and then stopped feeding, and never saw bees try harder to work after that, but they dwindled down to ¼ of what they were when I shook them off. By the time the brood began to hatch they had increased to fair sized colonies. On October 12th I examined them for the last time. I now have them in the cellar and they seem to be wintering well.

I put the old hives and combs in the cellar and extracted the honey.

I think I made a mistake in not leaving a few bees in each hive to hatch the brood. I could have put them with the others and kept them from dwindling so much. If I get rid of this foul brood I shall not spread any brood after this.

Hastings, Minn., Feb. 19, 1881.

From the New York Tribune.

Do Bees Puncture Grapes?

PROF. A. J. COOK.

Not long since I received a letter from Professor F. W. Lustin, of the University of Lewisburg, Penn., stating that the question of "destruction of grapes by bees" was exciting attention in their Natural History Society.

More recently Mr. Gustavius Schoenfield, a fruit grower and apiarist of Brockton, N. Y., wrote: "At the last meeting of the Chautauqua County Horticultural Society, war was waged against the industrious bees. My observation leads me to think that the wasps are at the root of the mischief. These latter puncture the fruit, and the aroma from the oozing juice attracts the worker bees, which sip, lap, and suck until nothing remains but the skin and seeds of the grapes. Is it possible for the weak jaws of our bees to tear open the skin of any fruit? This question is a serious one for this section. I lost two tons of Delaware grapes last season. I should say that there were 500 bees to one wasp, but the wasps were always leaders."

Mr. A. G. Gulley informs me that the grapes, especially the Delawares, are greatly injured at South Haven, Michigan. He is not sure but the birds and the wasps are the prime aggressors, but surely the bees are not slow to join in the attack. Whole clusters of fine grapes are utterly ruined, often not a grape left that is not sucked dry. This is really becoming a most interesting and no less important matter.

At Huron, Ohio, Mr. H. J. Krock is accused by a bee-keeper, Mr. Peter Klasen, of poisoning his bees by use of Paris green because the bees have become a great nuisance, as claimed by Mr. Krock, in that they annually destroy his grapes, upon which he depends for a livelihood. This has not only led to a serious quarrel but fire-arms have been drawn and expensive litigation began.

I have many letters and inquiries like the above. Surely our fruit-growing friends feel, and with no small show of reason, that they are great sufferers. And reason and justice both demand that we as bee-keepers give their complaints a most attentive and respectful hearing, and if these complaints are founded in fact, it lies with us not only to make amends but to secure against future injury.

I have no personal knowledge that bees do tear open grapes, though I have sought it carefully and long, both in Michigan and California. That bees will visit punctured grapes to sip the juice, just as they will frequent cider-mills in quest of similar liquids, there can be no doubt. Two or three persons have told me that they have seen bees actually tear open grapes. Two of these are extensive grape growers, and were urged by me, two years since, to inform me when they next witnessed such action on the part of bees. Yet I have not been notified up to date. Several persons have called my attention to such depredations, only to become convinced upon closer examination that the bees merely sipped from such fruit as had been previously wounded.

I have placed punctured grapes before bees, and when the latter got fairly to work sipping the juice, I would replace the wounded fruit by that which was wholly sound, when the bees would at once leave the fruit. So from my observations and experiments I have been led to believe that this habit, if ever true of bees, was exceptional. This opinion was sustained by the well known habit of bees to search out and lap up, not sealed liquids, but such as were exposed and which were found by the bees, only because of the volatile particles which escaped from them. We do know that wild bees pierce the bases of long tubular flowers, that they may reach the nectar which would else be beyond their reach. I have noticed here for years past that the flowers of the wild Bergamot, Monarda fistulosa, are thus perferated; and more, that the honey bees procure nectar from these openings. If we knew that the honey bees made these openings—I have looked long, but in vain, to find them thus employed—then we would have something analagous to the tearing open of grapes. From the fact that bees are able to cut away strong paper, and even factory cloth, inclines me to reverse my former opinion that bees, because of their weak jaws, were unable to tear open the tough grape skins. The fact that bees are among the most intelligent of insects, and that by visiting punctured grapes they learn of the presence of the coveted liquid, makes it easy to see how they may have acquired this unwelcome habit, if they do possess it, and may well make apiarists slow to contradict their brother pomologists, who assert positively that bees do puncture sound grapes.

What are we going to do about it? If it be found that our bees do attack and ruin the property of our neighbors, or even of their swarming about the grapes at harvest time becomes an "insufferable nuisance," or even sorely annoying, we should remove our bees to such a distance as will prevent the trespass, or carry them, for the few weeks of the vintage, to a dark cool cellar, from which they are to be removed as soon as the grape harvest is over. As in many places—probably nearly all where grapes are grown—there is a dearth in September, of nectar-secreting bloom, this action may be taken with no loss to the bee-keeper, except that of moving the bees. If the bees can be moved into a more desirable locality for nectar, then the bee-keeper may "kill two birds with one cast of the stone." It is a glad fact that bees only attack such liquids in the absence of the more acceptable flower nectar, so usually there will be no loss from removing to cellar at times when grapes are visited by them. The great drouth the past season in some sections, the excessive rain in others, and the consequent dearth of nectar in the flowers, quite probably led to the very numerous complaints the past season.

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For the American Bee Journal.

How the Bees are Wintering.

M. MAHIN, D. D.

The present winter has been one of the most disastrous to bee culture "within the memory of the oldest inhabitant." In this section of Indiana apiculture has not made as much advancement as in many other localities, and nearly all winter on the summer stands, and without any special preparation. I am of opinion that two thirds of the bees in Huntington County are already dead, and the end is not yet.

Mine have fared better than the majority. I had 47 colonies in the fall, and up to this time I have lost 16. The winter has confirmed my previous views in some things, and not in others.

I have heretofore advocated placing hives that are to be wintered out of doors in full sunshine, and with the entrance to the south. The results of this winter have strikingly confirmed the correctness of my theory. I had 23 colonies that were slightly shaded by a high paling fense and some fruit trees; they were also partially protected from the west and north winds. I had 24 others standing where they were entirely unprotected from either wind or sun, and facing the south. The average condition of the two lots was the same as nearly as could be determined. They were prepared for winter in the same way, and except in the matter of exposure to the sunshine there was no reason why one should winter better than the other. And now for the result. Of the 23 that faced the north and were partially shaded 11 are dead; and of the 24 exposed to the full sunshine only 5 are dead, and the present average condition of those facing the north is not as good as the others. There were a few days in the months of December and January when the temperature was below 40°, and sometimes when it was scarcely above freezing, that the bright sunshine tempted the bee to fly. Some of them were lost, but the greater part returned in safety to the hives. Those that perished on the snow would have perished in the hives if they had not come out, as would many of those that returned.

There was another advantage of having the sun shine on the front of the hive; the sun warmed the hive so that the bees could get to their stores in the long cold weather. I am sure that some of my colonies died of starvation with plenty of honey in the hives, and with from three to five winter passages through every comb. The cold was so intense and so long continued that the bees could not even go through a single comb to get to their honey.

The question of absorbents or no absorbents is frequently discussed. My experience this winter does not throw much light on it. The most of my hives were covered with four thicknesses of heavy brown paper on the frames, with an inch honey board over the paper. Two had the caps filled with carpet, straw, etc. Of these two, one is dead and the other is in no better condition than those that had no other absorbent than the brown paper. I usually confine my bees in winter below the top bar of the frames by filling the space between the frames with strips of wood, but not so tight but that a little air can escape. I am careful to make passages for them just below the top bar.

Huntington, Ind., March 1, 1880.

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For the American Bee Journal.

Using Tin Separators.

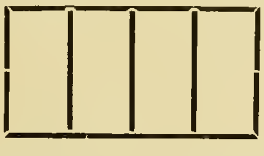
JAMES HEDDON.

In reply to Mr. Carl Tuttle, in the BEE JOURNAL of Feb. 23, I will say that I succeeded in crating every 5x6 section, except 16, that I produced in 1879, which number amounted to 2,760. I also glassed a large share of the brightest combs, and no separators were used.

You will remember, Mr. Editor, that the season previous I sold you, at my Glenwood apiary, 80 cases of 5x6 sections, a small part of which were glassed. You could hardly believe my statement, when I told you that no separators were used next the combs that were not glassed, and that we had only about 20 that were too crooked to crate. We did use a few separators that season, that were left over from the many that we used the two seasons previous. I agree with Mr. Tuttle, that tin is the best for separators, and that all separators are a great drawback to the production of comb honey.

But to our method: I believe that the honey-board I use, and the clamp method of placing the sections thereon, have something to do with it. Of course, no one would expect to get straight combs without separators, by putting sections within frames, and placing those frames in a super or upper story.

Now to the $4\frac{1}{4}$x$4\frac{1}{4}$ sections. I apply these to the hives in a case cut up by divisions, thus—



using no honey-board and no glass. I get 99 combs out of 100 straight enough to crate nicely by this method, and I do it by filling each section full of comb foundation. I use foundation which is so nicely made that when drawn out and filled, there is no "fish-bone" or other peculiarity to cause one to believe that foundation was employed in its construction. These sections are so small, that when filled with foundation, accurately adjusted, there is almost no chance for the growth of a crooked comb therein. The cover to the case rests bee-space above the narrow tops of the sections, and, as the bees can pass freely around the top-piece of the section, I think that tends to show them where to stop the length of each cell. Again, I use a 2 inch end piece, and only a $1\frac{5}{8}$ (instead of $1\frac{3}{4}$) top and bottom piece to my sections. That, too, tends toward straight combs. It also admits of double capacity for bee passage between the tops of the sections, because it is just wide enough ($\frac{3}{8}$) for two bees to pass at once, exactly opposite each other; $\frac{1}{4}$ inch is not.

I have no fears as to safe transportation and ready sale of honey put up in these 1 lb. sections, and crated in 12-comb crates. They come the nearest to being "wheat" of anything I have ever owned in the bee line, unless it be wax; I mean "spot cash." I do not think there will be a very great demand for glassed honey after these packages are well introduced. Besides, the nicest method of glassing is *on the outside* of the section, with paper caps, *a la* Moore.

In regard to the "proper care of sections, after adjusted," I must confess I have lost the thought that was in my mind when I wrote the article, for when applied as I have directed, the results are such that no further care is needed, as a rule.

Dowagiac, Mich., Feb. 25, 1881.

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For the American Bee Journal.

The Wintering of Bees.

J. S. HEAD.

How to winter bees is important to everyone interested in apiculture, but we have much to learn about handling and wintering bees. Seemingly, to read some works on bee-culture, one would only have to purchase the hive, and then sail (as it were) smoothly along to success—but in reality it is only to encounter "blasted hopes."

It requires ability as well as practice to be successful in any pursuit. But do not think that I object to any good bee book. For those just embarking, as well as for practical bee men, such are essential; without such, one would soon fail to realize any compensation for expense and time; of all periodicals my preference is for the Weekly BEE JOURNAL; and I wish it much prosperity.

I will give a more explicit description of the hive I use than that given in Vol. 16, page 473. Have your lumber well seasoned, and nail the hive together; make some mortar from yellow clay soil, with lime water, adding 1-5 plaster of Paris, and then plaster the inside of the hive $\frac{1}{2}$ inch thick, and in three days the hives will be ready for any reasonable degree of heat or cold, as it is a non-conductor when thus plastered.

If my bees have not sufficient honey in the brood chamber for wintering, I let the upper boxes or frames of honey remain, giving them time to carry it below and cap it over, for their winter stores. When cold weather begins, remove the frames from the upper story, placing the cloth over the brood frames; pack over them cotton seed, which absorbs all heavy or damp air that may pass through the main entrance or arise from the bees; this keeps them warm and healthy. I have never been troubled with foul brood or dysentery in my apiary; and I have only lost one colony this winter, in that I neglected to pack the seed tightly, and that gave the air too free a circulation through the hive, causing them to chill. I never allow bees to be disturbed, if possible, while in winter quarters.

Benton, Mo.

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For the American Bee Journal.

Spring Dwindling.

E. A. THOMAS.

With many, spring dwindling has become a serious drawback to uncessful bee-culture, and how to prevent it is a problem they would like to have solved. Many are prejudiced against cellar wintering on account of the greater liability to dwindle in spring, and I think, myself, that bees confined through the long winter will have more ambition when they get out in the spring, than those that have had an occasional fly during the winter. But if we can control and direct this ambition, it will turn to our advantage, and this great objection to cellar wintering will be done away with.

Now, I have never been troubled with spring dwindling, and I do not believe anyone need be if they will only watch their bees carefully in early spring, and take every precaution to guard against it. It is of no use to deny that it requires care and trouble to prevent it, and those that cannot give their bees the necessary care and attention must not grumble or complain if their bees do dwindle.

Perhaps it will be of interest to the many readers of the BEE JOURNAL to hear how I manage Orchard Apiary during the early spring months. In the JOURNAL for February 9, I told how I gave my bees water in the cellar and the good results I obtained by doing so. Now, I consider it still more important to give the water after they are taken out in the spring. Bees generally have a sufficient supply of old pollen preserved in honey to last until late in the spring, so their greatest want, in order to carry on brood rearing, is water, and by giving it to them I manage to keep them quiet, when they would otherwise be obliged to go out for it on cold, windy days and so perish in their zeal for the welfare of the colony. There are a great many cold, windy days when the sun, shining warm on the hive, will cause the bees to come out in large numbers, and the harsh winds soon chilling them, they are unable to return again. On such days I keep them at home by closing the entrance, and shading the hive from the rays of the sun. It will not do to keep bees confined too long out of doors, and *just how long* is a question that requires good judgment and experience to determine. I have kept them shut up in this way for nearly a week by giving them plenty of water in the hive, but it is seldom that I am obliged to confine them so long.

I would advise every one to go carefully into this matter, and unless they have a good memory, not to attempt it, as a neglect to watch and liberate the bees when it is time may cause their ruin. My hives have glass in the back, by means of which I can tell just when the bees begin to show signs of uneasiness and so liberate them about as soon as they find out that they would like a fly.

Coleraine, Mass., Feb. 1881.

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For the American Bee Journal.

New Metal Corners for Brood Frames.

W. B. ANDERSON, M. D.

I have devised a plan by which I can convert my summer hives into winter or chaff hives, which is quite satisfactory to me, and I think much cheaper and more convenient than any chaff hive I have ever seen. I use a frame the same depth as the Langstroth, and only $\frac{3}{4}$ as long; they hold 6 1-lb. sections.

Instead of hanging a frame on a rabbet, as is usually done, I have devised a corner-piece made of sheet tin, and bent at right angles to fit the corner of the frame, and on each end of the angles of the corner-piece are projections $\frac{3}{8}$ of an inch long, which serve as feet for the frame to rest on, and to give the requisite space at the bottom and ends of the frame. The corner-pieces are $1\frac{3}{8}$ inches long, $\frac{3}{8}$ longer than the frame is wide, and when the frames are set together the ends of the corner-pieces come in contact, and thus leave $\frac{3}{8}$ inch space between the frames. When the corner-pieces are fastened to the frames, the frames can be turned upside down, stood on end, or sides reversed at pleasure. When the honey season is over and I wish to pack for winter, I have simply to set my frames on end, and pack the spaces thus left between frames and hive with chaff cushions. My hives being high enough for two sets of frames give, when frames are set on end, over 6 inches on top, and over $2\frac{1}{2}$ on the sides for packing. Now, I thus get a shallow frame for summer use, and a deep one for winter. Frames are rarely ever glued together with propolis, and when lifted out of the hive can be stood upright on a board without danger of falling, and but little of being blown over. They are convenient for shipping purposes, and, in general, I think a very convenient frame.

I send by mail a sample set of the corner-pieces, and will send any reader of the BEE JOURNAL a sample set who will pay the postage, etc., and think those who try my plan will like it.

Bloomingdale, Mich.

[The corner-pieces have been received and placed in the BEE JOURNAL Museum, for the inspection of those who take an interest in the later inventions.—ED.]

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN,
Editor and Proprietor,

CHICAGO, ILL., MAR. 9, 1881.

☞ "Correspondence" and "Letters" having accumulated very much, and it being highly important to give our readers all the news about the present condition of the bees throughout the country, we have devoted much of the present issue of the Bee Journal to these departments, at the expense of the space usually given to Conventions, Exchanges and Editorial. Time has fully demonstrated that the Weekly Bee Journal was a necessity which could not have been dispensed with much longer. The perfect deluge of correspondence which we now have, could not have been accommodated in a Monthly, and besides, progressive apiarists need a medium of communication much oftener than once a month.

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☞ By an oversight in reading proof of advertisement last week, the price of Bingham & Hetherington's honey-knife was placed at $2. It should have been $1, as usual.

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☞ Sec. Chamberlain, of the Ohio State Board of Agriculture, gives the following as his views on "Bees and honey in Onio:"

"Bees are well distributed through the State. In nearly all the counties, the range, as may be seen, is from 1000 to 3000 hives of bees, with a proportionate product of honey. The total value of the 'crop' is (at 20cts) $270,548, and bears to the total value of the wheat crop the ratio of $1 to $190."

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☞ Several bee-keepers in this vicinity are considering the feasability of holding a convention in Detroit this spring. The law in regard to foul brood, which is about to be passed, makes an organization necessary. It is desirable to know how many would favor the enterprise. Will such please send me their address. A. B. Weed.
No. 75 Bagg street, Detroit, Mich.

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☞ One of the handsomest publications is the *Illustrated Scientific News*, published by Munn & Co., New York. Every number contains 32 pages, full of engravings of novelties in science and the useful arts. Ornamental wood work, pottery, vases and objects of modern and ancient art are finely shown.

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☞ The next meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held at H. W. Lee's, 2 miles n.w. of Pecatonica, Winnebago county, Ills., on the 17th of May, 1881. J. Stewart, *Sec.*

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☞ On account of unfavorable weather the convention at Monroe Centre, Ill., met on Feb. 8, and there being but few present, adjourned to the same place on March 29, 1881.
A. Rice, *Pres.*

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I cannot do without the Journal, and like the prospect of a Weekly very much. Honey was a failure in this section last season. Hattie B. Brown.
Lotus, Ind.

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☞ We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

Evils Correcting Themselves.

We are often led to think that all misdemeanors, whether trivial or criminal, possess within themselves a latent corrective principle as well as a retributive nature. Ancient history furnishes many illustrations of governments becoming so corrupted and lawless that reforms were forced upon the people even before they anticipated them. In Italy, Spain, Portugal and other countries, the enormities of the Inquisition relieved the people from the oppressions of the church; in Russia the magnitude of the system of serfdom became an incubus upon the government itself, and before the many millions of serfs were even prepared for liberty they were declared free; in China and Japan, the ignorance caused by a thousand years of seclusion forced the government to take the most active measures for the encouragement of the sciences and arts; the aggressive oppressions of Turkey upon her dependencies finally awakened the resentment of the civilized world, and provoked a salutary interference in her governmental policy; at least twice in the history of France do we find the excesses of her rulers forcing the groaning masses into revolution; and here, in our own country, many of our readers witnessed the presumption and arrogance of the leading traffickers in human flesh, who, not satisfied with a quiet submission to their soul-revolting slavery, insisted upon making all citizens their confederates by the enactment of the Fugitive Slave Law, and thereby broke the chains that bound five millions of humanity in a slavery worse than death.

And who can doubt that commercial abuses will not to some extent correct themselves? It is but a repetition of history, with a different application. For years have we been complaining of the rapidly increasing manufacture of glucose, and arraying a hostility to its imposition upon the public, when now comes the good news that so much competition exists in its manufacture and sale that it is no longer remunerative. Prices of glucose syrup have rapidly declined from 90 cents and $1 per gallon to 30 cents, and the marginal profit is so small that there is a prospect of the leading manufacturers drifting into honest trade, and making pure sorghum syrups. They will thus become a valuable auxiliary to farmers and producers, and will themselves help to swell the rapidly increasing ranks of those demanding congressional prohibition of poisons under innocent names.

Still another encouraging illustration is at hand in the wayward course of oleomargarine—popularly called "butterine," rightly called "hogine." So rapidly has it been forced upon our market, that the public health has been seriously impaired by its use, and the many cases of winter cholera have been attributed directly to the uncooked lard employed so largely in its preparation. That which our Congress has been too tardy in legislating upon, and which the dairymen (backed with the enactments of the Illinois Legislature) have been unable to reach, is being rapidly accomplished by the cupidity of the counterfeiters themselves. They have forced the City Council, as a sanitary measure, to prohibit the sale of bogus butter, and scarcely a day now passes that arrests are not made and heavy fines imposed; it has even forced manufacturers and retailers to sell it for what it is. Meantime, continue to condemn adulterations; right will prevail at last, for truly, "There *is* a God in Israel."

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Be Prepared for Freshets.

At last, after many weary days, and weeks and months of waiting, we have encouragement of mild weather. Hope long deferred, the present winter, has often made the heart sick; and now, that we are about to realize the fruition of our earnest and oft-repeated wishes for warmer weather, it is with a shudder we contemplate the disasters and destruction that will almost certainly follow the return of nature to a normal condition, and the continuance of sunshine for any protracted length of time. The memory of but few, if any, runs back to a winter similar to the present, when the snow (no longer the "beautiful snow") mantled the earth for so many months continuously, and in such lavish quantity. One correspondent wrote us they had enjoyed *one hundred and four days* of constant sleighing, and since then more than *another thirty* days have been added. The average and general depth of the snow throughout the entire Eastern, Northern and Western States, has been measurable by feet—not inches. In the Central States the same is true, while in the mountains and on the plains it is without any recorded precedent.

Should a continuous season of genial sunshine follow our unparalleled winter, high waters will prevail for several weeks, but the damage will not be so great to the country at large as if the snow should be carried off with spring rains. Usually, we have had heavy or protracted rains in midwinter which have relieved the earth of its burden of snow, and divided the floods between January and April; but this winter the snow has accumulated, and yet awaits its current to the sea. Therefore, while we hope with our readers for the best, we cannot too forcibly impress upon them to be prepared for the worst. Little rivulets, where usually the sweltering and parched cattle have found scarcely enough water in summer to assuage their thirst, may become rivers in magnitude and pregnant with danger to everything in their proximity; while the usually placid rivers will become mighty torrents, overflowing their banks in many places of comparative safety, flooding the lower country for miles where broad-stretching cornfields have been the rule and marking their course with destruction and desolation. Our friends in the Central and Southern States along the water-courses, cannot too soon provide for the safety of their families, stock and perishable property. Immediately remove all bees to high, safe ground, then look to the safety of your cattle, horses, hogs and sheep, and have a place of refuge provided for yourselves and the loved ones of home. Be prepared in time—even before this Journal reaches you, the waters may be on their way. We may be unnecessarily alarmed—we hope so, but there is an immensity of snow in the country, and we can see no way for its disappearance except through floods.

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☞ Mr. James Heddon reports a loss of only 2 colonies out of 212, in this the severest of all winters.

AMONG OUR EXCHANGES.

GLEANINGS.

Cause of Dysentery.—Mr. James Heddon gives the following as his views on this subject:

"I have observed numbers of dead colonies, and I am more than ever convinced of my previous opinion, that the *cause* of dysentery is an undue amount of animal or vegetable particles, so to speak, in the honey the bees are wintering on—probably the former—a *bacteria* that infests honey while in the blossom, or otherwise; that the greatest *aggravations* of the disease are cold and confinement. Cold, because of the more honey consumed, and confinement, which prevents the voiding of the poisonous accumulations. Cold and confinement, without this bacteria, will not cause dysentery. These bacteria, without cold and confinement, will not show themselves. The above is the only theory I can imagine, that will fit all the cases that have come under my observation. I *believe* it, because we so plainly see this great law in the animal and vegetable world, that one life exists at the expense and death of another. Man comes into the category as no exception.

SELECTIONS FROM OUR LETTER BOX

Bingham's Bees.—Our bees had a fine fly on Feb. 22, and are all in fair order; 15 colonies were somewhat out of line, but are sound now. I think they are in better order and have wintered better than in 1880. I hear of some who have lost heavily, but have not their exact loss. While it will be sad to hear of the losses, it will be amusing to hear opinions. Bee-keepers are brave, and can face most anything, and not flinch. This winter has shown too many that "in an hour ye think not, the evil is at the door." The past few years had lulled many to repose, and the early frosts overtook them before they were prepared. Enough will survive the winter to demonstrate the fact that bees may be safely wintered in any climate, under favorable circumstances.
T. F. Bingham.
Otsego, Mich., March 4, 1881.

Colonies Strong and Healthy.—As it is thawing and pleasant to-day, my 16 colonies of bees had a good cleansing flight; all are strong but 1, which I am nursing. I have thirty frames of capped honey, what can I do with them?
F. H. Seares.
Girard, Pa., Feb. 26, 1881.

[Use them for feeding the bees in the spring; hang them in the hive just as they are, or place one flatwise over the frames, and the bees will come up and take the honey very readily. Be careful not to open the hives on cold spring days, or you may chill the brood. It is unnececessary to uncap or extract the honey, the bees will do that.—Ed.]

No Surplus.—The Weekly Jorrnal is a very welcome visitor. I put into winter quarters 63 colonies of bees, in good condition. I put them into a deep, dark cellar, well ventilated, with a temperature of from 45 to 47°; while it was, on the outside, 10° below zero, in the cellar it was 45°. I put them in before the cold set in, and I think they are doing splendidly. I obtained no surplus. We had a very late harvest, or there would have been no bees here by this time. Bartlett Z. Smith.
Tuscola, Ill.

What a charming paper is *our* new Weekly Bee Journal! It is a credit to the country. J. Matthew Jones.

All Right.—Last fall I packed my bees with chaff; they are wintering finely; they had a good flight to-day. I am delighted with the Weekly BEE JOURNAL.

G. H. ADAMS.

North Nassau, N. Y., Feb. 11, 1881.

Why is it?—We have 2 colonies very nicely packed in chaff. Last week, with the thermometer at 45°, many of them came out, discharged their feces, and dropped on the snow. We gathered up several, warmed and returned them to the hive, but they came out again. Others flew off and dropped at a long distance. They had been confined about 14 weeks. What is the cause?

ROBERT H. SMITH.

Faulkenburg, Ont., Feb. 14, 1881.

[They had contracted dysentery from long confinement, and came out of their hives to die, which would have resulted had they remained in. The loss to the colony will hardly be perceptible, if those remaining are healthy.—ED.]

Italians vs. Blacks for Wintering.—The loss of bees here is over 150 colonies, there not being more than a dozen left. The loss was mostly caused by poor, unsealed honey and long confinement. The winter has been unusually severe. The past 2 years were poor for bees, especially the last. I had but 2 swarms and obtained 400 lbs. of honey from 23 colonies last year; and now I have only 8 left out of 24. I use the Quinby hive packed with chaff; but like the Langstroth frame best, as it is more easily handled. The black bees are nearly all dead; of 12 black colonies I have only 1 left; out of 12 Italian colonies, 7 are alive. I hope to get some of the best strains in the country, and build them up again, as I have plenty of combs on hand. The BEE JOURNAL is a welcome visitor.

CHARLES F. UPHAUS.

Batesville, Ind., Feb. 18, 1881.

Shallow Hives for Winter.—I went into winter quarters with 14 colonies (13 blacks), 12 were in Langstroth and simplicity hives, 2 in box hives; 10 colonies had sufficient stores; 2 were weak. The cold spell in Nov. caught me unprepared, to some extent, although all but 2 in Langstroth and simplicity hives, had 7 inches of chaff covering. After it warmed up a little I packed the 12 with dry straw on all sides but the front, and covered them so that the straw would not become wet. Nine lived through the second cold wave, but now 8 more are dead; all left plenty of stores, so that so far, I have lost 11 out of 13, and 1 that is now living was shipped by rail 25 miles, on Dec. 15, in a tall box hive. All the bees in this neighborhood in Langstroth hives are dead, while, as far as my knowledge goes, those in tall box hives are living. Now why is this? Do you not consider the Langstroth hive too shallow for wintering, especially in severe winters like this? I am more than satisfied with the Weekly BEE JOURNAL.

J. H. EBY.

North Robinson, O., Feb. 28, 1881.

[The deep frames, as also the shallow ones, have their ardent admirers, and all claim especial advantages for their favorite hives. With everything favorable, we cannot imagine why one should be preferable to another; in other words, the most successful hive one winter often proves most disastrous the next. Could we regulate the winters, it would be an easy matter to determine the proper depth of frames.—ED.]

Bees in Good Condition.—We are having one of the most severe winters, that we have had in this part of the world for many years; in fact its equal is only remembered by the oldest settlers. On Feb. 3d the thermometer stood 30° below zero. Last winter our coldest weather only reached zero. Our bees have been confined since the 5th day of Dec. until the 11th day of the present month, making in all 67 days, or a little over nine weeks. A part of our hives which stood in a row near a fence, was completely drifted out of sight; the rest were only partially covered with snow. Since the thaw, it has been quite cloudy, the thermometer being at 47° above zero; some of the bees flew quite briskly, but the most of them were rather inclined to remain quiet. As far as we have examined we find them in very good condition; much better than we expected. A few show signs of dysentery, though not to a bad extent. There are quite a number of beginners in this vicinity, with only 6 or 8 colonies each, that have lost a number of colonies; undoubtedly the cause was a lack of proper protection for winter. But perhaps the "winter of our discontent" may come during the cold, stormy blasts of March; but it is to be hoped they will come out all right.

V. H. ORMSBY.

Pierpont, O., Feb. 14, 1881.

Bee Dress for a Girl.—My father has long been a bee-keeper, and proposing to assist him the coming summer, I desire information through your JOURNAL for a most suitable bee dress for a girl, in regard to material and style of making.

BELL TOMLINSON.

Allegan, Mich., Feb. 20, 1881.

[In answer, we copy from Prof. Cook's "Manual of the Apiary, page 197.—ED.]

"For ladies, my friend, Mrs. Baker, recommends a dress which, by use of the rubber skirt-lift or other device, can be instantly raised or lowered. This will be convenient in the apiary, and tidy anywhere. The Gabrielle style is preferred, and of a length just to reach the floor. It should be belted at the waist, and cut down from the neck in front, one-third the length of the waist, to permit the tucking in of the veil. The under-waist should fasten close about the neck. The sleeves should be quite long to allow free use of the arms, and gathered in with a rubber cord at the wrist, which will hug the rubber gauntlets or arm, and prevent bees from crawling up the sleeves. The pantalets should be straight and full, and should also have the rubber cord in the hem to draw them close about the top of the shoes."

No Flight since November.—My 30 colonies of bees have had no flight since Nov. 1, and I fear they need it very much—a part of them being "packed" on the summer stands, while the rest are in the cellar. The Weekly BEE JOURNAL never comes before I am ready for its valuable instruction. I do not see how I could get along without it. I wish it every success.

H. H. MITCHELL.

Maquoketa, Iowa, Feb. 28, 1881.

Bees in Missouri.—Is it possible to transmit foul brood in foundation? I have been using it to some extent, and expect to use it more extensively in the spring. We have had a long, cold winter; bees have had but one good fly since Nov.; about the 5th of Feb. they had a partial fly. I think fully one half of the bees in the country will die. The thermometer has indicated 18° below zero. A poor season, with an enormous fruit crop, is, perhaps, the cause. My bees appear all right; they are all well packed in chaff. My neighbor's bees are in moderately good American hives, without protection, except open honey-boxes on top, and they are all right. So I do not know which method is best. I know of no other bees packed in the country, but hundreds are dead; perhaps packing would have saved some. Linden timber is plenty with abundance of white clover, and a perfect sea of fall flowers, at the head of which, as a honey producer, stands the Spanish needle. The so-called "Simpson honey plant," grows wild, but not in sufficient quantity to be of much benefit, only to show that it is a favorite with the bees, from daylight until dark. Buck-wheat does not amount to much here; it often fails to secrete honey. I shall, this summer, try alsike, white, and melilot clovers.

A. R. LEEPER.

Odessa, Mo., Feb. 28, 1881.

[Foul brood will not be transmitted by the use of comb foundation, even if the wax came from diseased colonies.—ED.]

Granulation of Honey.—I should like to know Mr. Hoge's plan for keeping honey from granulating. Heating honey makes it darker, and if it boils it spoils the flavor. Please give it in the BEE JOURNAL.

G. F. NORTHROP.

Southport, Conn., Feb. 10, 1881.

[We know nothing more of his plan than that given on page 37. Perhaps he will give it in some future number of the JOURNAL.—ED.]

Wintering in Maine.—I fear it is too far north here in Maine to winter bees on the summer stands. In wintering in the cellar the combs get moldy. Mr. Root advises wintering on the summer stands, and I have tried it for two seasons. Last winter I put my weakest colonies into the cellar, but more perished of those on the summer stands than those in the cellar. This winter I have 9 in chaff hives, 12 in tenement hives, 4 in house packed with chaff and straw, 6 in dry goods boxes stuffed around with straw, and 23 in the cellar with chaff cushions over the frames, and chaff division boards.

Dexter, Maine. L. FRENCH.

Queen Rearing.—Mr. Weed, on page 58, of the BEE JOURNAL, asks how many colonies I made yield $25 each, at queen rearing. It was fifteen colonies. Perhaps I ought to explain that *all* of the income was not derived from queens, as there were eighteen colonies sold in the fall, and I had 600 lbs. of extracted honey, but the rearing of queens was my *specialty*, and the main income was from this source. Judging from my experience, I think I could care for 40 colonies, devoted to queen rearing. More time, per colony, is required in queen rearing, than in working for honey, but I think queen rearing pays, in the long run, a *little* the best.

W. Z. HUTCHINSON,

Rogersville, Mich.

Death! Death!! Death!!!—I have long since found that it is not best to "whistle until out of the woods." I am out, and no mistake; but I have not a single bee left. My bees had plenty of honey. I had a very small increase, and that by natural swarming; but my bees were not strong in the fall. There was something the matter with them last summer. From July on, thousands of young bees came out of the hive as though they would start for the field, pitch off of the alighting board to the ground, and make a few attempts to rise, and then turn on their backs and die. They would act just as though they had been stung. Sometimes the ground was covered with bees in front of the hive, for several hundred yards. I had just Italianized them; but now the bees in the county are nearly all gone, there is nothing left to build up with. I weighed my bees on the 1st of Nov., and marked the weight on the hives, and put them into winter quarters on the morning of the 15th, and they never lived long enough to eat more than 2 lbs. of honey. The walls of my winter bee-house are 12 inches thick, filled with dry sawdust. I had 18 colonies in this place, and 1 packed in sawdust out of doors, and there was but one colony alive by the 1st of Feb., and they died before the month was out. I think it is safe to say that 24 colonies out of every 25 are dead, in Randolph Co., Ind. I will try again. I love bees and the BEE JOURNAL.

ABE HOKE.

Union City, Ind., March 4th, 1881.

Five per cent. of Loss.—My loss is 5 per cent. up to date. I have not lost one that was packed. The loss will not vary much from 20 per cent. by the 1st of May, and one half to those with no protection. The January thaw, that came February 10, has saved my bees. Mr. Betsinger hit the nail on the head when he said: "No honey, plenty of foul brood; plenty of honey, no foul brood." I hear complaints from Mich., of "no honey, and of foul brood" making sad havoc. The long and the short of it is, that in a poor season it will spread fast; and in a good season, it is early cured by cutting out with a knife.

W. L. COGGSHALL.

West Groton, N. Y., Mar. 3, 1881.

Losses in the Cellar.—Live bees are a scarce article here, and will be more so if winter continues much longer. Many persons have lost all, while none have escaped without considerable loss. I am often asked the question: "What is the cause of the great loss of bees?" I cannot give a satisfactory answer. The continued excessive cold weather is probably the main cause. In one cellar that I know of, bees have, for several years, wintered well. This winter all have died except 1 colony, and that is quite weak. They were put in after the first cold snap, and were strong and apparently in good order; all were well supplied with honey. At first I did not like the change from monthly to weekly, but am well pleased now.

ISAAC SHARP.

Waveland, Ind., Feb. 23, 1881.

Duplication.—The finest queen I have came from D. A. Pike. She is light in color, and prolific, and produces the finest marked workers that I ever saw. She does not duplicate her bees; but they are very fine. They do not duplicate, and never will.

A. J. TUNNELL.

Carrollton, Ills., Feb. 23, 1881.

Sad loss of Bees.—In this vicinity nearly all the bees are dead, caused by neglect in preparing for winter. Some have starved for lack of stores, but many died with plenty in their hives. Mine are packed in chaff on the summer stands, and are yet in good condition.

H. B. BRITTAIN.

Alexandria, Ind.

Will soon be ready for the Harvest.—My bees are never moved from their summer stands, and out of over 80 colonies I have only lost 4. They have had a severe time, but as soon as they are ready to go to work I shall give them fresh ground rye-meal.

E. C. JORDAN.

Stephenson's Depot, Va., Feb. 22.

Highly Pleased.—Your neat and very desirable Weekly BEE JOURNAL I read through as soon as it comes. I am highly pleased with it, and rejoice that we are, through your foresight and generosity, to have the pleasure of greeting your valuable JOURNAL *four* times each month.

A. W. HALE.

San Bernardino, Cal.

Three per cent. of Loss.—Last fall I put 35 colonies into winter quarters. They were in Langstroth double-walled hives, packed with chaff on the top, botttom, and on three sides. I have lost but 1 yet, though they did not have a flight from early in Nov. until Feb. 11. Yesterday I looked over 3 colonies, which I found strong, having a little brood, and honey enough to last them until the middle of April, when I shall have to feed them. Losses are very heavy in this locality among the inexperienced. The time is coming when none but the progressive will keep bees—the sooner it comes the better. I am well pleased with the Weekly BEE JOURNAL.

EDSON J. SMITH.

Addison, Vt., March 1, 1881.

Good Enough.—With 12 colonies, in the spring of 1880, I increased to 35, by natural swarming, and obtained 1000 lbs. of surplus nearly all in 2 lb. sections, which I sold at 20 cts. per lb. at home. One colony gave off 3 swarms. My bees are all in good condition, and they will not need any feeding this spring.

E. DOTY.

Macksburg, Iowa.

Lost but few.—Our bees have had a fly, and we find we have lost but few; but they are needing fair weather, and a backward spring would be disastrous.

CHAS. DADANT & SON.

Hamilton, Ill., March 3, 1881.

About Half Dead.—I am well pleased with the Weekly BEE JOURNAL. My bees are not wintering well. About one half of each colony are dead now. It looks as though they would come out very feeble in the spring.

M. S.

North Wayne, Me., Mar. 1, 1881.

Packed in Chaff.—I have 153 colonies of bees packed in chaff. All were alive at last examination about ten days ago, but they have not had a purifying flight since October, and many are affected with dysentery, a few badly. I fear a heavy loss unless the weather moderates soon. The American Bee Journal is very welcome as a weekly visitor.
Bangor, Mich. H. D. Burrell.

Good for a Novice.—I commenced last spring with 2 colonies partially Italianized, and increased, by dividing, to 8. I had a bee man look them over in the fall, who pronounced them in good condition and with plenty of honey. I obtained, also, about 30 lbs. of surplus. Is this not doing well for a novice, and a very poor season? Now, I want to try the prize box plan a little, can I use the comb honey rack and prize boxes on my hive? Is silver hull buckwheat as valuable for grain and honey as other kinds, and would it pay to plant it successively through the season for honey?
A. Hodges.
Shenandoah, Iowa, Jan. 26, 1881.

[The rack for the American hive, with a slight modification, will fit your hive nicely. Silver hull buckwheat is said to be superior to other kinds for all purposes; and where ground is cheap, we should think it would pay to plant it for a succession of bloom. You will find the other questions accompanying your letter frequently answered in previous numbers of the Journal.—Ed.]

Long Winter.—I doubted whether a Weekly Bee Journal could be sustained; but now that it is under good headway, I am well pleased with it, and wish it sucess. I am sorry that, having increased my business more than ever, I cannot get time to write for it, as usual. I need not say that I never before saw such a winter as this. My bees, over 50 colonies, were all right January 30, except 4 of the weakest. They had then been confined about three months without a flight, though on their summer stands—a longer confinement than my bees ever had before. It is snowing and very cold now, and no telling how they will come out yet. Those of the other apairy are all right, and if I do not lose over 10 colonies I intend to sell 30, as I shall not have much time to work with bees this year, but still I cannot do without the Journal.
R. M. Argo.
Lowell, Ky., Feb. 28, 1881.

All the Natives Dead.—I commenced the winter with 35 colonies of bees and have only seven now, and they are my purest Italians. I have now 250 nice combs, each containing at least 4 lbs. of honey. I see that some advertise nuclei—2 combs, 6x12, a small colony of bees—could they be built up to good colonies during the next season? I am better prepared for building up weak colonies than ever, as all my neighbors' bees (100 colonies) are dead. I could have saved most of my bees had I known what the winter would be. I have got rid of my blacks, and have no idea of keeping them again. I now think the cause of my loss or gain, I do not know which, was zero weather in Nov., and for want of young bees, and, principally, *carlessness*, which follows a bad season. I could give the condition of the bees that starved, but those that winter out of doors have only to open a hive and look! a little patch of brood and frost between them, etc.
Waveland, Ind. Peter James.

[Nuclei may be easily built up to good colonies, if they have prolific queens, by the aid of comb foundation.—Ed.]

Bees Need a Flight.—My bees have had a hard time for the last 3 weeks; from the 7th to the 10th inst, it was just warm enough to make them uneasy, but they could not fly without dropping to the snow and dying; for the 4 days above mentioned, the mercury stood from 30° to 35° above zero in day time; from the 10th to the 26th it was from 20° below to 20° above; on the 26th it was as high as 40° above, with calm, foggy, misty weather. Some of the colonies had a flight, but a good many dropped to the ground and died. My bees have not had a general flight since the latter part of October. There was no day warm enough for it since. Four colonies out of 147, are dead, and quite a number are very weak; while in a great number of colonies, about ⅓ of the bees are dead, and if they do not get a flight soon, I expect about ½ of my colonies will die. They were in good condition, with plenty of stores, when winter set in; if they could have had a cleansing flight about Feb. 1st they would have been all right.
C. Theilmann.
Theilmanton, Minn.. Feb. 28, 1881.

Bees All Right.—My bees are all right. They had a nice "fly" on February 26th. Success to the Weekly Bee Journal. S. S. Bristol.
Galesburg, Mich., Feb. 28th, 1881.

Delighted with the Weekly.—I am delighted with the Weekly. I had grown so attached to the old Monthly that I feared the change. But it was wise and timely; the added advantage from quick and frequent information will soon double the number of its subscribers. I had no idea of the force of this advantage till experience demonstrated it. To ask for information with assurance that it may come in a few days, is comforting and will surely be appreciated by all intelligent bee-keepers.
A. J. Cook.
Lansing, Mich., Feb. 21, 1881.

Rather Gloomy.—I had 10 colonies last fall and now have none; but this loss did not come unexpectedly. The colonies were very weak; there was not enough secretion of honey from about the 1st of June, to keep the bees alive; had they not had such a rich flow of honey early in the summer they would have died before the fall. I had thought of feeding, but that cold snap came on a little too soon, and killed all but 4 colonies, and those were nearly gone, and died too. The clusters were too small, for all the colonies left some honey in their hives. I feel a little discouraged, but am not despondent. I intend to purchase one or two colonies in the spring and take a new start. I will report of the neighborhood, 3 or 4 lost all, one 6 out of 7, another 5 out of 8. So you see that the season was a poor one.
H. Wilson Ulsh.
Middle Creek, Pa., Feb. 18, 1881.

Bee Moth, etc.—What is the best manner of protecting surplus combs, for future use, against the ravages of the bee moth? Are the Cyprian and the Syrian bees, or either of them, superior to the Italian bee, according to the best authority upon the subject?
G. G. Hughes.
Burlington, Ky., Feb. 9, 1881.

[For an exhaustive answer to the first question, see Mr. Doolittle's article entitled, "Bees Destroyed by Worms." It has not yet been demonstrated that, as a race, either the Cyprian or Syrian bees are superior to our American-Italians, though both may possess desirable traits which may be improved by judicious breeding or crossing.—Ed.]

An Excellent Crop.—My honey harvest for 1880 averaged, per hive, 30 lbs. of comb honey and 40 lbs of extracted. I left from 32 to 40 lbs. per hive, for winter. Thanks to the Bee Journal, I have been able to get 70 lbs. of honey per hive, and double my stock in the poorest season that has been known in this part of the country; at the latter part of March the bees were gathering a good deal of honey from the maples, but with the month of April came cold, blustering weather; the month of May was also very cold. The sun shone about twice a week for half an hour or so, to tempt the bees from the hive; but half of those that went in qust of food never returned. June found the colonies very much reduced, but brought us fine weather and an abundance of honey, so that the colonies became strong in a short time, and with the advice of the Bee Journal, I kept them strong. My colonies are as strong or stronger to-day than they ever were, even at swarming time, before I got the Bee Journal.
P. P. N. E. Pelissier.
Pelissier P. O., Ottawa Co., Que.

A Stray Swarm.—On Nov. 13, my father found a swarm of bees settling on an oak 250 yards from our apiary. I doubled them with a weak colony. It was a small swarm, and settled very naturally. There has been no honey gathered for at least 2 months, and will be none for as many more. What made them swarm? Chas. S. Sanderson.
Mt. Fairview, Cal., Dec. 17, 1881.

[It was a late swarm, which had been starved out.—Ed.]

Enameled Cloth.—What is the enamel cloth, used for covering the brood chamber? Our stores contain nothing that seems reasonable to use for that purpose. Nelson Hammond.
Traverse City, Mich., Feb. 19, 1881.

[Enameled cloth is cotton duck or sheeting enameled on one surface, and usually sells at 25 to 30c. per yard.—Ed.]

Cider a Cause Disaster.—There is a heavy loss of bees in Central Ohio, on account of impure honey gathered last fall. In some large apiaries all the bees are dead; but where the extractor was used last fall and the impure honey extracted, bees are wintering finely—none dying that have sufficient honey. A number of bees died before mid-winter that had enough sealed honey to have carried them through the winter. Bees gathered a large amount of cider and impure honey-dew late in the fall, which they did not cap; it soon fermented and proved almost certain death to the bees. I have no doubt but that a large share of the bees which are reported as dying of dysentery, might have been saved by the use of the extractor. I predict a good honey yield during the coming season. I love too well to hear the musical hum of their busy little wings to ever give up bee-keeping.
Aaron Benedict.
Bennington, O.

Colonies Strong and Healthy.—My bees had a splendid cleansing-flight on Feb. 25th. I have lost but one colony during this severe winter, and have some of the strongest colonies that I ever saw at this time of the year.
Joseph Elder.
Huntington, Ind., March 2, 1881.

Will be Ready for the Harvest.—I went into winter quarters with 40 colonies—38 were strong, and 2 were 3-frame nuclei; 25 were in the Root chaff hive, and the rest in Langstroth and simplicity hives. I prepared them for winter during the latter part of October, and from that time until the 1st of February they had no flight. I found 36 colonies living, 1 queenless, and 2 that I could crowd onto 2 frames; all had sealed brood but 1, and I think they will all be ready for business in good time.
C. G. Knowles.
Portland, O., Feb. 28, 1881.

Ventilation.—I am glad the Weekly is established on a firm basis, for a weekly is indispensable to every progressive apiarist. Our success depends upon close reading, instructive suggestions and thoroughly practical experience. My pets are wintering finely on their summer stands. Last summer, during the heated term, 2 combs in the center of the brood nest in one of my Italian colonies, melted and broke loose from the frames, consequently there was an indiscriminate mass, indicating imperfect ventilation. My hives are all protected from the noon-day sun. They fit close to the bottom board, with an entrance 8 inches wide, which some say is ample for ventilation. I have tried raising the hives and putting small blocks at the corners; this method admits the bee moth from all points of the compass, besides the bees sometimes build a flight of stairs with propolis up to the bottom bars. I tried sliding the hive backward beyond the bottom board. This method is easier told than performed. For inconvenience, unwieldiness and irritability, it is first class. I tried wire-cloth at the top of the chamber, only to find it enameled with propolis. Bottom boards with holes cut in and a ventilator slid under, make excellent receptacles for all the filth of the hive, if covered with wire-cloth. My experience is like Mr. Camm's—every mesh sealed. Please tell how to ventilate in hot weather? W. R. Young.
Myersville, Md., Jan. 25, 1881.

[An entrance at the front and rear of the hive will furnish all the ventilation required, where the hives are shaded at noon-day, besides being a convenience to a strong colony during a plentiful honey flow. An inch hole in each end of the hive, about ⅔ up the brood chamber, covered inside with wire-cloth, will afford ample ventilation, and is plugged when no longer required.—Ed.]

Alsike and Melilot.—My bees had their first flight on Feb. 24th. Since November 26th, 1880, we have had steady very cold weather; the thermometer being once at 23° below zero. Bees in this location are all alive yet. I opened my hives yesterday; the bees are in very good condition, with plenty of brood, I had them in a shed packed with woolen blankets. I was glad to see the editor's likeness in the Bee Journal. Which is the best for bee pasture, alsike or melilot clover? Peter Mærlein.
Brussels, Ill., Feb. 25, 1881.

[Melilot is much the best.—Ed.]

Artificial Pollen, etc.—1. On page 129, Vol. for 1880 of American Bee Journal, is an interesting article on the substitution of pea flour for pollen. Will it answer to use rye flour instead, mixing it in the same manner? and is it better sifted before using?

2. Last fall, while preparing my bees for winter, I put away several combs partly filled with unsealed honey from syrup made of coffee A sugar. Will it do to feed this back in the spring, when the bees are flying freely?

3. What is the best method of giving combs to the bees to have them cleaned of loose honey? Wm. Stolley.
Grand Island, Neb., Jan. 14, 1881.

[1. Unbolted rye flour will answer, and can be given in the same manner, though not so good. We prefer oatmeal, placed in tin pans at a short distance from the hives, and well protected from the wind.

2. If the honey is not soured, it can do no harm to feed back for early consumption, while bees are flying freely.

3. Place one frame each alternate day, or as fast as they are needed, in the brood chamber, using care not to chill the brood. A good extractor, however, will leave the combs dry and clean of honey, if not granulated.—Ed.]

Spring Dwindling.—For the prevention of spring dwindling my plan is, after setting them out and they have a good cleansing flight, to close the entrance entirely, so that no bees can pass; bore a ¾-in hole 3 inches above the entrance and tack a wire-cloth over it; they will not smother when so treated. Leave them so until it is warm enough for them to fly. When cold evenings occur, close them up, and open when it is warm enough for safety, after the sun has warmed the air. This plan will also prevent the chilling of young larvæ, which are often dragged out by the bees in the morning. Dead larvæ in the hive, is in my view, very conducive to foul brood, if not the main cause of it. Follow this plan until the weather is sufficiently warm to need no such care. Adopt the same plan in the fall. Bees here have not had a flight since going into winter quarters; those with plenty of stores seem to be all right as yet. Success to the Weekly Bee Journal. J. B. Ide.
Climax, Mich., Feb. 25, 1881.

CONVENTION NOTES

Nebraska State Convention.

The Nebraska State Bee-keepers' association held its third annual meeting at Plattsmouth, February 10 and 11, and elected the following officers for 1881, viz: President, T. L. Von Dorn, Omaha; vice-president, S. L. Thomas, Plattsmouth; secretary, G. M. Hawley, Lincoln; treasurer, F. E. Caldwell, Bellevue.

President Craig delivered the annual address before retiring from the chair, and W. C. B. Allen acted as secretary in behalf of Secretary W. G. Pigman, who was unable to be present.

Papers were presented by Charles Dadant, of Hamilton, Ill., on "Spring Dwindling of Bees;" by G. M. Hawley, of Lincoln, on "Food Plants for Bees;" by T. L. Von Dorn, of Omaha, on "Drone Progeny" and "Bee-keeping for Profit;" and by T. S. Corbett, of Omaha, on "Bee Pasturage."

The meeting was the most practical and interesting ever held by the association, and a fair attendance was had from Washington, Douglas, Sarpy, Cass and Lancaster counties. Mr. James T. Fife, president of the South-western Iowa Bee-keepers' association, from Corning, Iowa, was invited to take part in the proceedings. A two days' discussion ensued upon various topics of bee-culture, including "Wintering Bees," "Increase of Colonies," "Bee Pasturage," "Marketing Honey," "Comb, or Extracted Honey," and the practical experience of the members called out by questions and answers.

Resolutions of respect were passed to the memory of Dr. H. Munger, of Omaha; also resolutions of thanks to the people of Plattsmouth, and to the railroad companies for reduced rates and other courtesies.

G. M. Hawley, J. J. McLain and T. S. Corbett were appointed a committee to take charge of the exhibit of the bee-keepers at the next State Fair.

* * *

Read before the Ky. Hort. Soc'y.

Bees as Fertilizers of Flowers.

DR. N. P. ALLEN.

The subject of fruit culture, in connection with apiculture, is one that is fraught with much interest, and if I can say anything that will cause horticulturists of my own State to investigate and test the two pursuits together, I shall feel amply rewarded for my effort in that direction. I am aware that there is a prejudice against fruit-raisers keeping bees; but I regard the bees necessary to success in horticulture. In fact, I regard apiculture as the handmaid of fruit-culture.

The office that bees perform in the fertilization of the flowers of most all our fruits is of primary importance, and cannot be dispensed with without loss. I am aware that many other insects perform the same office to a limited extent; but the honey bees, much more than all, carry the pollen from flower to flower, and by that means the flowers are fructified, and in return furnish the bee with both bread and honey—its natural food. Thus you see the importance of combining fruit and bee-culture. Where there are no bees, flowers fail to set their fruit to a great extent, and the consequence is a short crop. If you have bees sufficient to gather the rich stores from your gardens and orchards, you will thus secure the most wholesome and delicious food for you tables the world affords; food fit for the gods—pure, unadulterated honey, unlike the vile stuff we often buy from the grocery, mixed with glucose made from corn and potatoes.

Bees kept on the improved plan are very profitable—often paying from 100 to 200 per cent. on the capital invested; but some of our wine-growers will tell you they are destructive to vineyards, and that you cannot keep bees and raise grapes. I have kept bees and grapes together for a number of years, and have given them my personal attention, and have never seen bees puncture or tear open perfectly sound grapes; not that they could not, but that they will not. Birds, wasps and hornets are destructive to grapes, and when they are punctured the bees follow and take up the wasted sweets; and, being so much more numerous, are noticed by the observer, while the real depredators are overlooked.

If you will take a bunch or so of ripe, sweet grapes and puncture half of them, and put them near a hive of bees, you will see that the bees, after taking up the sweets from the punctured grapes, will leave the ones that are sound and perfect. In wet weather, when sunshine and showers alternate, grapes will crack open and bees will collect in large numbers on them, and all that are imperfect will be rifled of their sweets, and the bees are condemned for the destruction, when, in fact, they are not guilty. In France and Germany, where wine is extensively made, bees are kept in large numbers; and also in California. Then I would say to all who are engaged in fruit-raising, keep bees; at least sufficient to supply your tables with honey, if not to fill your pockets with money.

Bee-keeping is both pleasant and profitable. It is elevating in its tendency, as it brings us in close contact with nature, and through nature we look up to nature's God; and thus we are made better by observing the wondrous working of the tiny bee in constructing its waxen cells, rearing its young and gathering the fragrant sweets from nature's flora.

> "Garden and orchard-lawn, and flowery mead;
> The blue-veined violet, rich columbine,
> The wanton cowslip, daises in their prime,
> With all the choicest blossoms of the lea,
> Are free allowed and given."

Local Convention Directory.

1881. *Time and Place of Meeting.*

March 12—Mills Co., Iowa, at Glenwood, Iowa.
April 2—S. W. Iowa, at Corning, Iowa.
5—Central Kentucky, at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
7—N. W. Ohio, at Delta, Ohio.
13—N. W. Missouri, at St. Joseph, Mo.
D. G. Parker, Pres., St. Joseph, Mo.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 18—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

* * *

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 18@20c. for strictly choice white comb in 1 and 2 lb. boxes; at 14@16c. for fair to good in large packages, and at 10@12c. for common dark-colored and broken lots.—*Chicago Times.*

BEESWAX.—Choice yellow, 20@24c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 17@18c.; fair do., 15@16c.; dark do., 12@13; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 80@85c.

BEESWAX.—Prime quality, 20@23c.

CINCINNATI.

HONEY.—The market for extracted clover honey is very good, and in demand at 11c. for the best, and 8@9c. for basswood and dark honey. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@24c. C. F. MUTH.

SAN FRANCISCO.

HONEY.—We quote comb 12@15c. Extracted, choice white, 6½@7c.; offcolors, 6@6½c.

BEESWAX—22@23c., as to color.

STEARNS & SMITH, 423 Front Street.

* * *

☞ "What is the meaning of 'Dec. 81' after my name on the direction-label of my paper?" This question has been asked by several, and to save answering each one, let us here say: It means that you have paid for the full year, or until "Dec. 31, 1881." "June 81" means that the first half of the year is paid for, up to "July 1st." Any other month, the same.

LADIES WHO APPRECIATE ELEGANCE and purity are using Parker's Hair Balsam. It is the best article sold for restoring gray hair to its original color and beauty.

SPECIAL NOTICES.

☞ When changing a postoffice address, mention the *old* address as well as the new one.

* * *

☞ We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

* * *

☞ The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

* * *

☞ Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

* * *

☞ Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

* * *

☞ The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

* * *

PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

* * *

☞ Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

* * *

☞ Any one desiring to get a copy of the Constitution and By-Laws of the National Society, can do so by sending a stamp to this office to pay postage. If they desire to become members, a fee of $1.00 should accompany it, and the name will be duly recorded. This notice is given at the request of the Executive Committee.

* * *

☞ It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Postoffice, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

* * *

☞ At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

* * *

☞ We have filled orders for quite a number of Binders for the Weekly BEE JOURNAL. We put the price low, 30 per cent. less than any one else could afford to sell them, for we get them by the quantity at wholesale and sell them at just enough to cover the cost and postage, the latter being 21 to 23 cents, on each. We do this to induce as many as possible to get them, and preserve their Weekly numbers. They are exceedingly convenient; the JOURNAL being always bound and handy for reference. The directions for binding are sent with each one.

Books for Bee-Keepers.

Cook's Manual of the Apiary.—Entirely re-written, greatly enlarged and elegantly illustrated, and is fully up with the times on every conceivable subject that interests the apiarist. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, **$1.25**; paper covers, **$1.00**, postpaid. Per dozen, by express, cloth, $12.; paper, $9.50.

Quinby's New Bee-Keeping, by L. C. Root.—The author has treated the subject of bee-keeping in a manner that cannot fail to interest all. Its style is plain and forcible, making all its readers sensible of the fact that the author is really the master of the subject. Price, **$1.50.**

Novice's A B C of Bee-Culture, by A. I. Root. This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, **$1.25**; paper, **$1.00.**

King's Bee-Keepers' Text-Book, by A. J King.—This edition is revised and brought down to the present time. Cloth, **$1.00**; paper, **75c.**

Langstroth on the Hive and Honey Bee. This is a standard scientific work. Price, **$2.00.**

Blessed Bees, by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, **$1.00.**

Bee-Culture; or Successful Management of the Apiary, by Thomas G. Newman.—This pamphlet embraces the following subjects: The Location of the Apiary—Honey Plants—Queen Rearing—Feeding—Swarming—Dividing—Transferring—Italianizing—Introducing Queens—Extracting—Quieting and Handling Bees—The Newest Method of Preparing Honey for Market, etc. It is published in **English** and **German.** Price for either edition, **40 cents**, postpaid, or $3.00 per dozen.

Food Adulteration; What we eat and should not eat. This book should be in every family, where it ought to create a sentiment against the adulteration of food products, and demand a law to protect consumers against the many health-destroying adulterations offered as food. 200 pages. Paper, **50c.**

The Dzierzon Theory;—presents the fundamental principles of bee-culture, and furnishes a condensed statement of the facts and arguments by which they are demonstrated. Price, **15 cents.**

Honey, as Food and Medicine, by Thomas G. Newman.—This is a pamphlet of 24 pages, discoursing upon the Ancient History of Bees and Honey; the nature, quality, sources, and preparation of Honey for the Market; Honey as an article of food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, &c.; and Honey as Medicine, followed by many useful Recipes. It is intended for consumers, and should be scattered by thousands all over the country, and thus assist in creating a demand for honey. Published in **English** and **German.** Price for either edition, **6c.**; per dozen, **50c.**

Wintering Bees.—This pamphlet contains all the Prize Essays on this important subject, that were read before the Centennial Bee-Keepers' Association. The Prize—$25 in gold—was awarded to Prof. Cook's Essay, which is given in full. Price, **10c.**

Bees and their Management. This pamphlet was issued by the Italian Bee Company, and has had a large circulation. The price has been reduced from 20 cents to **10 cents.**

The Hive I Use—Being a description of the hive used by G. M. Doolittle. Price, **5c.**

Kendall's Horse Book—No book can be more useful to horse owners. It has 35 engravings, illustrating positions of sick hoses, and treats all diseases in a plain and comprehensive manner. It has a large number of good recipes, a table of doses, and much other valuable horse information. Paper, **25c.**

Chicken Cholera, by A. J. Hill,—A treatise on its cause, symptoms and cure. Price, **25c.**

Moore's Universal Assistant contains information on every conceivable subject, as well as receipts for almost everything that could be desired. We doubt if any one could be induced to do without it, after having spent a few hours in looking it through. It contains 480 pages, and 500 engravings. Cloth, **$2.50.**

Kopp's Easy Calculator.—These are handy tables for all kinds of merchandise and interest. It is really a lightning calculator, nicely bound, with slate and pocket for papers. In cloth, **$1.00**; Morocco, **$1.50.** Cheap edition, without slate, **50c.**

☞ Sent by mail on receipt of price, by

THOMAS G. NEWMAN,
974 West Madison Street, **Chicago, Ill.**

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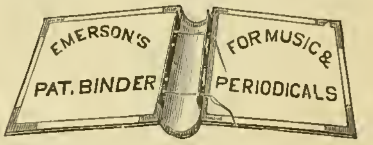

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We can furnish Emerson's Binders, gilt lettered on the back, for AMERICAN BEE JOURNAL for **1890**, at the following prices, postage paid:

Cloth and paper, each..........................50c.
Leather and cloth..............................75c.

☞ We can also furnish the Binder for any Paper or Magazine desired.

THOMAS G. NEWMAN,
974 West Madison Street, **Chicago, Ill.**

HONEY WANTED.—I desire to purchase several barrels of dark extracted honey, and a few of light; also, Comb Honey. Those having any for sale are invited to correspond, giving particulars.

ALFRED H. NEWMAN
972 West Madison street, CHICAGO ILL.

THE BRITISH BEE JOURNAL,

AND BEE-KEEPER'S ADVISER.

The *British Bee Journal* is published monthly at $1.75, and contains the best practical information for the time being, showing what to do, and when and how to do do it. **C. N. ABBOTT**, Bee Master, School of Apiculture, Fairlawn, Southall, London.

THE AMERICAN BEE JOURNAL

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A line will contain about **eight words**; fourteen lines will occupy one inch of space.

One to three weeks, each insertion,	**20**	cts.	per line.
Four " or more" "	**18**	"	"
Eight, " " " "	**15**	"	"
Thirteen " " " "	**12**	"	"
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THOMAS G. NEWMAN,
974 West Madison Street., Chicago, Ill.

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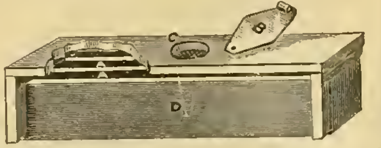

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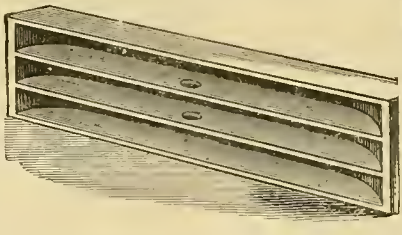

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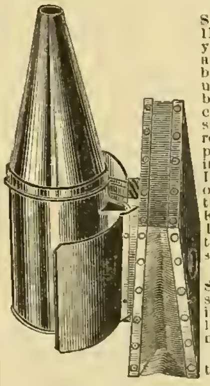

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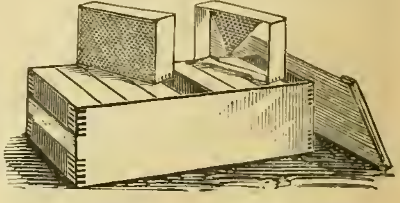

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VOL. XVII. CHICAGO, ILL., MARCH 16, 1881. No. 11.

THE AMERICAN BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,

EDITOR AND PROPRIETOR,

974 WEST MADISON ST., CHICAGO, ILL.

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CORRESPONDENCE.

For the American Bee Journal.

Pure Liquid Honey in Glass Jars.

CHAS. DADANT.

Under this heading I find an article from Mr. W. M. Hoge, who says that he has invented a way of preparing liquid honey so that it will not congeal. He adds that this discovery will be beneficial to bee-keepers, and he explains how we will profit by it. The tendency of honey to candy, for all the adulterators of honey, has proved to be a great impediment; while, for the producers, it is a good characteristic, for it is the best stamp that a bee-keeper can put on his product—a stamp that the adulterators are unable to counterfeit.

Now that the consumers at large begin to give their preference to candied honey, the adulterators, seeing their sales decreasing, try to invent some means to stop this result, and incite us to help them to continue their fraudulent practice.

Let us remember that the candying of honey is the best test of purity thus far; that, by preventing honey from candying, we lower it to the level of glucosed honey; and that, as long as liquid honey can be found on our markets, we will be compelled to compete with adulterated honey, for the profit of this adulteration will always tempt the unscrupulous dealers, while we will be unable to compete with them for the price.

A few years ago we could find liquid honey, in glass jars, in every good grocery. Three years ago I produced, at the Western Illinois and Eastern Iowa Convention, held at Burlington, Iowa, one of these bottles, bought in St. Louis, labeled "Pure Extracted Honey, from John Long, New York." Mr. Hoge, who resided in New York at that time, probably knows "John Long." This "pure honey" was analyzed by an expert chemist and found mostly glucose. These jars and tumblers are now of slow sale, for the consumers begin to have confidence in candied honey. We are, therefore, in a fair way for selling our product. Let us go on, and turn the cold shoulder to the advice of those who have, so far, caused more prejudice than profit to bee-keepers.

Mr. Hoge, who has visited the old continent, knows, as well as I do, that in Europe liquid honey is unsalable, for the consumers are accustomed to buying candied honey. Let us persist in our efforts to educate the people on this question, and we will drive all spurious honey from our markets.

Hamilton, Ill., Feb. 2, 1881.

◆

For the American Bee Journal.

Colchian Honey.

REV. W. BALLENTINE, A. M.

I see in the BEE JOURNAL, under the above caption, a question from Mr. H. G. Colwell, of Columbus, Ohio, relative to the effects of honey eaten by the Grecian troops, under Xenophon, as they passed through Colchia in their famous retreat homeward. In regard to this, you propose a query, "Why did the ancient Colchian honey cause the above disorder?" I have frequently had my attention turned to this subject in reading Xenophon's Anabasis in the original, from which the extract by Mr. Colwell is taken. From the best sources of information at my command, the following seems to be the most rational.

• The honey of Asia Minor in many localities appears to be gathered from the flowers of the order Apochynoceæ, or dog-bones. Of this order, Prof. Wilson, in his botany, page 588, observes: "These plants possess active, and often suspicious qualities, residing in the white juice with which the order is pervaded, and in the seeds, which are often deadly poisons. The alkaloid *astychine*, or *strychinea*, one of the most violent poisons, is the active principle of the Strychorea Nux-vomica, of India. It is sometimes administered as a medicine, but with doubtful success; a single seed of one species is sufficient to kill 20 persons. The order is generally emetic."

In corroboration of this, I will give you the opinion of the celebrated Ainsworth, who traveled over the route of the Grecians, and took notes of all the localities and incidents recorded by Xenophon. He observes that this fact of the honey of Asia Minor being, in certain places, and at certain seasons, of a poisonous nature, was known to all antiquity, and is very common at the present day, so much so, that I have known the peasants to inquire if we would prefer the bitter or the sweet honey, for the honey so qualified has a slight, but not unpleasant, bitterness, and is preferred by many, from producing, when taken in moderate quantities, the effect of slight intoxication. Pliny notices two kinds of honey, one found at Heroclea, in Pontus, and another among the Sanni or Mocrones. The first he supposed to be produced by a plant called Æglatherem, or goatsbane; the second by a species of rhododendrom. Dioscorides, Diodorus, Liculus and Aristotle, all notice the honey of Heroclea Pontica. The celebrated botanist, Tournefoil, ascertained on the spot, that the honey of bees feeding on the Azalea Pontica, as also on the Rhododendrom Ponticum, possessed mischevous properties; but as the bitter and intoxicating honey is found in many parts of Asia Minor, where these plants do not flower, it is extremely probable that these peculiar properties are further derived from the flower of the Neriun Oleander, or common rose-laurel, the leaves of which are known to be acrid and poisonous. The natural family to which the rose-laurel belongs (apocyhnaceæ) is distinguished by plants endued with dangerous and fatal properties, and these act on the nerves so as to produce stupefaction. Rhodaraceæ also possesses narctoic properties, but in a less marked degree."

It appears from this, that the honey gathered by the bees from these poisonous plants, possessed some of the inherent qualities of the plants themselves, and operated like a narcotic or opiate on the nerves, producing stupefaction and intoxication. If you see proper you can give the above a place in the Weekly, with which I am, so far, very well pleased.

Sago, Ohio.

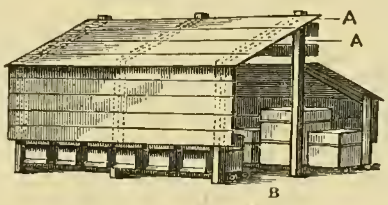
◆

For the American Bee Journal.

Combined Summer and Winter Stand.

H. L. PENFIELD.

The engraving shows a perspective view of a combined winter and summer stand, which I put up to accommodate 12 hives of the standard Langstroth pattern. It is constructed as follows: Put in the ground 9 oak posts 4x4 inches, for a frame to nail the 14 foot boards to —3 posts on each side, and 3 between these, set in the ground 18 inches. The ends are 9 feet wide, which I find gives ample room to manipulate the bees between the rows of hives, the operator being in the shade, and not in front of the entrance of the bees, which seldom bother me. The sides front east and west. The ends are open during the summer, and the north end boarded up in winter. We use millet hay for protection, filling in spaces between the hives, and over and under them, almost filling up between the rows, clearing away enough in front of the entrance for the bees to take a flight when the weather permits.



A, A—Ventilation and bee escape.
B—Space to work in and shaded.

This protection keeps them quiet, and storms beat on the shelter and on the millet hay. Of course, this is not a water-proof shelter or cover, and I do not think one is needed. It is advantageous to have an opening in the apex of the roof; this plan of having one roof higher than the other secures it with the least expense. It is curious to notice how the bees fly out of these spaces marked A, A (as both ends are open) while the operator is manipulating the hives. Sixteen boards 14 feet long and 1 foot wide cover it, and with the 9 posts and 4 2x4 studding to set the hives on, and short pieces to set on top of the posts to nail the roof to, complete the lumber bill.

Hunnewell, Mo.

◆

For the American Bee Journal.

Foul Brood, and Its Causes.

H. L. JEFFREY.

You ask for my observations on foul brood regarding the cases noted in the BEE JOURNAL. There are many who, I know, will disagree with me, but nevertheless, it seemed to come from no other source. The largest case of it was 25 colonies in one apiary. Ever since the year 1873 they had been wintered in the cellar, in a sort of room fitted up especially for them. They were usually put in about Nov. 25, and taken out about April 1st to the 20th, according to the season. This receptacle was directly under the living room, which was kept very warm. The bee-room was generally quite dry, and towards spring would stand from 45° to 50°, which would let the bees have from 60° to 80° in the hive, or perhaps 90°, causing the cluster to spread, and there was always a good supply of brood in the combs when taken from the cellar, and generally a considerable number of young hatched bees. So far everything was as good as could be asked for, and every good bee-keeper will say this could not have anything to do with foul brood; perhaps not.

These same hives, with more space and more surface of comb than a 10 frame Langstroth hive gives, were put into the cellar with all their combs in place, with a box 6 inches deep below the hive, and another above filled with straw, or with a top story filled with rags, old clothes and pieces of carpet or straw. The full complement of combs was left in the hives, regardless of the strength of the colonies, and they were then set on their summer stands without using division boards, or any contraction of combs. After setting out they were generally fed liberally every night to induce breeding, which is a good plan if properly handled, but in this case it helped to breed the disease, and it did do it to the fullest extent. Why? First, a small colony should not be given any more combs than it can cover, either in summer or winter. If the hive is too large, insert a division on one or both sides; if on both sides, let one of them be at least half an inch shallower than the hive, then if the numbers increase, they can crowd outside of it.

Second, if they are wintered in-doors, in a hive full of combs, take away all you can before they are set out in the spring, even if you have to feed to prevent starvation.

Third, if you do winter in-doors on a full set of combs, do not commence feeding regularly, to induce breeding, as soon as set out, though it be the 25th of April or even the 1st of May.

In the case mentioned the consequences were: In the weak colonies some of the bees died in the combs and contracted some moisture, consequently would mold. Some strong colonies would do the same, but many of the dead bees would be thrown down. The cellar had a drain 100 feet long, with a fall of 5 feet, to keep the cellar dry, and a ventilator 3 feet above the house-sill outside, at the south. The ventilator opened on warm days, consequently a draft of warm air, fire in the room above, temperature in the bee-cellar raised, cluster of bees spread, queen goes to laying, honey consumed, brood reared and old bees wearing out; all of these conditions are the requisites of good, strong, healthy colonies, and they are just as surely the forerunners of first-class cases of foul brood every time.

I know that 99 out of every 100 bee-keepers will differ with me, but go through the colonies with me 10 or 15 days after setting out on the summer stands; suppose in that time we have had 2 or 3 good flying days; the feeding induced the queen to lay more rapidly and forced the cluster to spread; the eggs hatched into larvæ; on the pleasant days the old bees flew out but forgot to fly in again, thus diminishing the cluster; then there came 2 or 3 stormy days in succession, cold and chilling; the cluster contracted as well as diminished in numbers; the minute larvæ starved and dead, and some, perhaps, that are advanced to capping; another flying day, and their numbers are more reduced. The dead bees in the combs putrefy, and you have for your pains a first-class case of foul brood in the near future. Many will shake their heads, but I saw the colonies, and in 3 years I saw the 25 and their increase decreased to 17, the 17 and their increase decreased to 9, the 9 down to 2, and the 2 went, in the spring of 1880, "where the woodbine twineth."

Woodbury, Conn., Feb. 26, 1881.

For the American Bee Journal.

Early Importations of Italian Bees.

REV. L. L. LANGSTROTH.

I can probably give, better than any one living, the history of the first efforts made to introduce Italian bees into this country; as I knew well the late Messrs. Samuel Wagner and Richard Colvin, and Messrs. S. B. Parsons and P. G. Mahan, who, with myself, were the first to import them. Messrs. Wagner and Edward Jessop, both residents of York, Penn., received from Dzierzon, in 1856, a colony of Italian bees which had starved on ship-board. Mr. Wagner's letter to me, August, 1856, and given the next spring, in my 2nd edition on bees, is the earliest notice, published in this country, of the Italian race of bees. Messrs. Wagner and Colvin, subsequently, bought a few queens of Dzierzon, which were consigned to the care of the surgeon of a Bremen steamship, who had been carefully taught what precautions to use for their safety. Fearing that the bees might sting his passengers, the captain would not allow them to be put on his vessel.

"In the winter of 1858-59," (I quote from Mr. Colvin's able article on bee-kings, in the Report of the Commissioner of Agriculture for 1863, page 530,) "another attempt was made by Mr. Wagner, Rev. L. L. Langstroth, and myself. The order was placed in the hands of the surgeon of the steamer, to whose charge the bees were to have been committed, but in consequence of his determining to leave the ship, the effort failed.* Subsequently arrangements were made, in the latter part of that year, and we received 7 living queens. Only two or three young queens were reared by us during that fall and winter, and in the following spring we found that all our imported stock had perished. In conjunction with Mr. Wagner, I determined to make another trial; the queens, however, did not arrive until June, 1860."

Our queens, which came in 1859, were in charge of a German resident of Brooklyn, N. Y., who was returning home from a visit to his friends, and to whom Mr. Wagner had given very careful directions how to care for them. This person, learning that Mr. Mahan had expressed the intention of having the honor of landing, in America, the first living Italian bees, and desiring, as he told me, to secure this honor for us, communicated Mr. Mahan's intention to the captain, who, as soon as the gang-way was in place, was the first person to step ashore, proclaiming with a very loud voice: "These are the first Italian bees ever landed on the shores of America!"

In the spring of 1856, Mr. S. B. Parsons, of Flushing, L. I., invited me to visit him, and advise with him as to the best way of managing his Italian bees. On my way, I called upon Mr. Mahan, who was joint owner with me of a large interest in my patent hive. He gave me a very graphic account of his visit to the apiary of the Baron Von Berlepscb, from whom he obtained a queen, and supplied me with a few Italian workers for Prof. Joseph Lidy, that he might determine how the length of proboscis, in that variety, compared with that of the black bee. On arriving at Flushing, Mr. Parsons showed me five hollow logs, or "gums," placed in an old bee-shed. It was a warm, sunshiny day, and I saw only an occasional bee flying out from one of the hives. These colonies had been purchased in Italy, carried safely on the backs of mules over the Alpine passes, to Genoa, from which port they were safely shipped to New York; but by a succession of mishaps, four of them died at Flushing. The fifth contained a mere handful of bees, with their queen, which I introduced to a colony of black bees. It is hardly necessary to say that none of these hives were ever in the same vessel with Mr. Mahan.

On the 18th of April, the steamer Argo arrived in New York, after a tedious and stormy voyage. Mr. Herman, a German bee-keeper, and author of a work on the Italian bee, who had been furnished with a large sum of money by Mr. Parsons to buy Italian bees in the best districts of Italy, and who had agreed to bring them over in the original hives, and breed queens for Mr. Parsons, *was not on board*, but in his place, a young Austrian, by the name of Bodmer. On the 19th, as soon as the bees were allowed to be landed, they were carried to Flushing. The small boxes in which they were put up were in three different packages, one of which was consigned to the U. S. Government, one to Mr. Mahan, and one to Mr. Parsons. As the Austrian said that he knew, by examination on ship-board, that the bees were in a very bad condition, and many of them already dead, and, as the day was very pleasant, they were all examined under my personal supervision, and I can assure Mr. Robinson that every colony consigned to the Government and Mr. Mahan, was dead. A few, only, of those marked for Mr. Parsons, had living queens, some of which soon died, and in a short time he found himself the possessor of only two queens, one of which was the queen found alive upon my arrival at Flushing.

By my advice, Mr. Wm. W. Cary, of Coleraine, Mass., a very skillful bee-keeper, and a thoroughly trustworthy man, was sent for by Mr. Parsons. One of the queens was entrusted to his care, on the premises of Mr. Parsons, and the other to Mr. Bodmer, some distance off, who did not raise queens enough even to pay for the black bees and honey which were purchased for his use; while Mr. Cary Italianized a large apiary for Mr. Parsons, besides filling all his orders for queens.

One hundred and eleven queens were carried to California, by Mr. A. J. Biglow, 108 of which reached there in good condition. This small per cent. of loss was, in part, owing to the skillful supervision of Mr. Biglow, and to the purifying flight which, by my advice, he gave them on the Isthmus of Panama; but all his precautions would have been of no avail but for the judicious way in which they were prepared by Mr. Cary and himself, for so long a voyage. The bees sent to Mr. Parsons were in cigar boxes, into which the combs were merely crowded or wedged: the loosening of the combs on so rough a voyage killed some of the queens, while others were drowned, with their bees, in honey; and others, still, starved from the boxes being over-crowded with bees. It is hardly necessary to contrast Mr. Biglow's success with the heavy losses sustained for years by those who imported bees from Europe. The result of Mr. Parsons' dealings with Herman were, that for $1,200 advanced to him, he had only 2 queens to show. The next season Mr. Bodmer, having learned how to pack bees for a sea voyage, brought over a number of queens in good condition, for Mr. E. W. Rose, but was very unfortunate in the management of them. Herman came, some years after, to this country, and was employed by a friend of mine in Philadelphia, to purchase for him, in Italy, a large number of queens. The return voyage was long and stormy, and every queen died on board the steamer.

Oxford, Ohio, March 5, 1881.

For the American Bee Journal.

A Good Way to Promote Bee-Keeping.

WM. F. CLARKE.

As a sample of what may be done in many parts of the country to diffuse knowledge regarding apiculture, and awaken an interest in bee-keeping as a business, let me give a brief account of a meeting recently held in Shaftesbury Hall, Toronto, under the auspices of the Y. M. C. A. Mr. D. A. Jones, having made the acquaintance of some of the leading spirits in the organization just named, offered to give a free lecture on bee-keeping. The offer was accepted, and a meeting announced to which the members of the Y. M. C. A. were admitted *gratis*, while the general public were charged a small fee. Mr. Jones invited the writer to be present as a reserve force, in case he should break down, (!) and what enthusiastic bee-keeper would not rally to the rescue when thus appealed to? Unfortunately Mr. J. was not in good trim, having been sick enough to keep his bed most of the day preceding the lecture evening. However, he gathered himself up for the task he had undertaken, and was cheered by the appearance of his ally just as the lecture was about to begin. For a sick man, he did bravely, and spoke for nearly an hour. His remarks were, of course, general, and very different from what they would have been if his audience had been composed of experienced apiarists. He discoursed on bee-keeping as a business, explained the outlines of it, showed that it was profitable, and especially dwelt upon the gain which would accrue to the country if it were more generally engaged in. An interesting sketch of his journey to Cyprus and the Holy Land formed the latter part of his address. The writer supplemented his remarks by a talk of about half an hour, the chief theme of which was advice to intending bee-keepers. There was a far larger audience than might have been expected, considering the prevalent apathy in regard to apicultural pursuits, and considering also that the weather was unpleasantly stormy. Much interest was evidently awakened; a number of questions were asked at the close of the addresses, and many lingered when "meetin' was out" to talk about bee-matters. An immense amount of good might be done if practical bee-keepers would engage in this kind of missionary work. The public is a dull scholar, and needs to be "enthused" by men who have the true apicultural spirit. Among other questions, these were asked:—"What is the best bee journal?" and "What is the best book on bee-keeping?" The AMERICAN BEE JOURNAL, and Cook's "Manual," were the replies given. In his counsels to beginners, the writer insisted very strongly, that the first step in practical bee-keeping was to get a good hand-book, and journal of apiculture. So, if you receive orders from Toronto for the AMERICAN BEE JOURNAL, and "Manual," you may give Jones' meeting the credit for having inspired them. There are not only Y. M. C. As., but other organizations all over the land that would be glad to have a meeting in the interests of bee-keeping. If 2 or 3 practical bee-keepers would divide the work and responsibility of maintaining such a meeting, it would not be so formidable, as though only one man undertook it. A plain, common-sense talk on a subject of such practical and commercial importance as bee-keeping, would be a welcome change from the elaborate lectures usually delivered before Y. M. C. As., Lyceums, and bodies of that ilk. I hope Jones' enthusiastic zeal will stir others up to emulation and imitation. Reader, if conscious of possessing "the gift of the gab" in any degree, "go thou and do likewise."

Listowell. Ont., March 7, 1881.

For the American Bee Journal.

Do Bees Injure Fruit?

F. P. BOUTEILLER.

A prominent wine-grower in this country, told me, about a year ago, that he did not want bees in his neighborhood as he found they injured his grape crop. As I have a small grapery, of about a hundred plants, between the rows of which I find shelter for about 20 colonies of bees, I determined to observe if his theory was correct, for I was loth to give up either. If any fruit crop could be injured by the visit of bees, mine is surely the one. The result of one season's close observation has convinced me: 1st. That bees promote rather than injure the foundations of fruit buds, because the bunches on my vines were full, with better developed berries, than those produced on vines less exposed to their visits, and my peach and cherry trees were as fairly loaded with fruit as they well could be. 2nd. That in the fall bees only visit our ripe berries, that have been sweetened by early frosts, and are very rarely seen on good sound fruit, when the skin is unbroken, and that the loss from this cause is of very little consequence, as the fruit attacked would fall off itself, without the visit of the bees, before gathering. I am wintering 21 colonies, mostly Italians; procured one of Jones' Cyprian queens, but too late in the fall to speak intelligently of the result. They are on summer stands, well sheltered and surrounded with straw, having means of exit, and I think are wintering well, but they have not had a good fly since early in November.

Belle River, Ont., March 5, 1881.

For the American Bee Journal.

Remarkable Tardiness in Fecundity.

G. W. DEMAREE.

One of my Cyprian queens has upset an established doctrine in bee-science, set at naught all the bee-books, and reversed the old adage which says: "hope long deferred maketh the heart sick." In the latter part of last season I reared some Cyprian queens from eggs and larvæ, obtained from Mr. Root; they were 7 in number, and were hatched on the 6th, 7th, and 8th days of Sept. The weather being warm and fair they were all fertilized (except one, which never returned from her bridal tour) by the 12th of the month, and a few days later they were all laying except one; that being the finest, brightest-looking queen of the lot, stubbornly refused to commense the duties of a good queen. She was in a strong nucleus which was fed regularly and bountifully, till the hive looked as though the occupants were enjoying a bountiful white clover harvest, but "nary an egg would she lay."

She was provided with a clean empty comb, placed in the center of the colony, and the feeding kept up till winter set in, but no brood appeared. The hive was not opened from the time it was prepared for winter (say Nov. 15) till the middle of Dec., at which time there was not a sign of brood. Then came the long siege of snow and bitter winds which lasted till the 30th of Jan.; on that date our bees enjoyed a good, cleansing flight, and I remembered my non-laying queen and proceeded to look her combs over, and to my surprise, on one of the center combs I found a little patch of brood about half as large as a postal card, some of which was sealed over. It was genuine worker brood, and no mistake. Since which time she has been laying nicely, and now has a nice lot of brood for the time of year.

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*Mr. Colvin, having formed the acquaintance of the German Captain, not only convinced him that the bees could not escape to injure any one, but inspired him with a strong desire to be the first to bring over in his own vessel, this valuable race of bees. It would require quite a volume to tell, at length, what sacrifices of time were made by Messrs. Wagner and Colvin, to secure these bees.

My bees, 30 colonies with selected queens, have come safely through the winter to the 1st of March, and there is really but little danger of losing bees in this climate after the 1st of this month, unless they are short of stores and shamefully neglected. The bee-man is aware, above all others, that there is "many a slip betwixt the cup and the lip," however closely he may watch his business. On the 30th of Jan. last, when my bees were flying lively, I noticed that one large colony with a tested Cyprian queen, were not stiring like the others. I proceeded to open the hive and found the bees so nearly starved that they could only show signs of life by a feeble motion of their wings, which produced no sound whatever. Not a bee seemed able to change its position; the fore-runner of death was already present in the form of a cold, damp atmosphere in the brood chamber. I prepared some rich sweetened water, separated the frames gently, and sprinkled the bees thoroughly with the sweetened water, and poured some of it into the empty cells. The frames were then readjusted and a dry woolen quilt spread over the bees and the sun permitted to shine into the hive. In about an hour I raised the quilt and the inmates of the hive were stiring briskly, handing around the good cheer, while some of them showed fight in a most patriotic style. They were provided with stores, and are now a No. 1 colony. So much for bee-science.

What a lesson this teaches? Here was a large colony of bees perishing with famine, as one single individual; so unselfishly had they divided their family stores amongst themselves that when relief did come, though not till their dire extremity, there was no practical loss of life. Before I close I cannot resist the temptation to tell how my bees have been carrying in meal, and prancing gaily on the alighting boards with their white pellets exposed to the best advantage.

Christiansburg, Ky.

For the American Bee Journal.

Honey-Producing in California.

W. A. PRYAL.

No doubt but by this time many of the Eastern bee-keepers are looking to this far-off "land of milk and honey," as of late years it has been called. Perhaps the reason is partly because here abundant warm rains have fallen all over the State, and the world-renowned honey region has received its complement of the down-pour; in fact, the inhabitants hardly ever saw so much rain visit that section at the right time.

There are now signs, however, that indicate the sun will shine with its usual brightness; that those delightful spring days, which are so peculiar to this fair land, are about to favor us. Let this be the case and the bees will soon be flying out by thousands, and the willow blossoms will each and all receive a welcome visit from those industrious insects. Their journeyings will not be confined to the banks of the creeks where the willows grow, but the woodland, where the Australian blue-gum (*Eucalyptus globulus*) has been planted by the hand of man, and which holds out its bounteous chalice for the busy bee to come and sip of nectar deep and sweet.

While the loss in bees will in all probability be great in the States east of the Rocky Mountains, here the loss, if any, will not be quite as bad as it has been other years. Thus it will be seen that our eastern brethren will have to commence the season with greatly reduced forces, while the apiarists in this State will commence operations with more colonies, and, consequently, with more bees. Last season was a good one, and the bees went into winter quarters with abundant stores, which have carried them through the mild winter safely. The bee flora having had ample rains to insure a most thrifty growth, will bloom for a longer period than it has heretofore, and, of course, will insure an enormous yield of honey.

On account of the long continuance of the rain, but few flowers have commenced to bloom. Still the plants are growing, and when they do commence, they will be able to do so in a vigorous manner. A few of those now blooming are the willows in variety, *Eucalyptus globulus*, and it is unusually covered with flowers; wild currant, a pretty fair honey plant, but scarce; wild gooseberry; wild blackberry, just beginning; raspberry, ditto; almond; pear and peach; mignonette; horehound, and a few others. All of which give the bees more than they can do to gather the nectar and pollen.

North Temescal, Cal., Feb. 17, 1881.

For the American Bee Journal.

Bee-Men to the Front.

A. W. FISK.

The present may be called "trying times" to bee-keepers of America. Poor honey seasons, hard winters, and the nefarious warfare against the honey producers of this country in the vile adulteration of honey, is indeed trying, discouraging and diabolical. It appears, by the papers, that these glucose scoundrels are not satisfied with adulterating extracted honey, but according to this article that I clip from one of our papers, *The Bushnell Record*, they are manufacturing comb honey. It reads as follows:

> Many singular discoveries have been made among manufacturers by the census enumerators in the course of their investigations. For instance, it has long been known that dealers are in the habit of adulterating honey with glucose on the plea of thus improving its keeping qualities. In Boston, however there is a firm doing a large business in making honey entirely from glucose much in the same way as manufacturers elsewhere make butter from suine and oleo-margarine. The comb is molded out of paraffine in excellent imitation of the work of bees; then the cells are filled with clear glucose and sealed by passing a hot iron over them, and the product is sent to Europe as our best honey. The busiest Italian bees couldn't compete with this firm in turning out honey, any more than could a Eurotas-like Jersey breed compete in butter-making with our deft manipulators of lard and tallow.

Now, brother bee-men, I believe the time has arrived when this honey counterfeiting should be stopped; I therefore suggest that the bee-men of this country come up in solid phalanx "to the front," and with Pres. N. P. Allen and the bee-paper editors as leaders, let us agitate the question, educate the people, stir up the press, wake up the country, and vote or petition to Congress until we secure the passage of a law by Congress against the adulteration of honey, sugar, syrup, or food of any kind. Many of the leading journals of our land are battling for the right in this matter. The *Burlington* (Iowa) *Hawkeye* last week expressed itself as follows:

> It is time that stringent legislative enactments are passed, making the adulteration of so many articles of food a criminal offense, punishable by severe penalties. If these things must be done to gratify the inordinate greed of some men, let it be made obligatory on them that the packages containing spurious products so proclaim them, under penalty of confiscation when detected, and the fraud further punishable by heavy penalty. No man has any right to sell a compound of honey and glucose as pure honey, nor has he any right, either moral or legal, to place a compound of butter and lard, still further "doctored" with drugs, upon the market as pure butter. If adulterations of food are allowed to go on in this way, unrebuked, there is not an article of food known that will not be counterfeited, and oftentimes with substances very hurtful in character.

I am thankful so many are lending their aid and influence in the cause of justice and humanity, but we want the united efforts of honest bee-keepers, and consumers, and fair dealers, to make a bold front against every adulterator, and to expose him to the world. In this way I believe the problem can be solved and the evil remedied.

Bushnell, Ill.

[So far as it refers to the adulteration of comb honey, it is a false alarm; all bosh! We alluded to this subject more at length on page 44 of the BEE JOURNAL for Feb. 9th. We are glad, however, to see the interest being awakened on the subject of food adulterations, and bee-keepers as well as all other honest producers, cannot be too out-spoken in denouncing it.—ED.]

For the American Bee Journal.

The In-and-In Breeding of Bees.

M. S. SNOW.

Mr. C. Thielmann, in the BEE JOURNAL, says he has bees which are mostly hybrids, and he does not know where they came from, but there are Italians 5 miles from him. Another says he has no black bees, and his queens must be purely mated, &c.; another that a neighbor has had some 10 or 15 colonies so many years, breeding in-and-in, but states he manages to keep his number about the same. Breeding in-and-in with bees, I am fully convinced, is not much done. Bees are free rovers and it seems to be their nature or instinct to mate at some distance from the parent hive.

This question was discussed by one of the speakers at a bee convention in N. Y. some years ago. He claimed that in-and-in breeding had a great deal to do with the failures in bee-keeping, &c. He compared an apiary to a yard of fowls, in this respect, and that they could be bred in-and-in until entirely worthless. This may be done, for fowls are confined to a particular locality, but how is it with prairie chickens? what is the reason they do not degenerate and run out? Because they are rovers, like the bee, and are mated by others from some remote part.

I claim that bees will mix from 5 to 7 miles, and if there are 50 or 100 colonies within that distance the progeny of a certain queen will stand a poor show of mating with drones from its own hive.

To illustrate: While living in N. Y. I obtained one of Mr. Langstroth's $20 tested Italian queens; I reared some 70 queens and introduced them into as many colonies. The next season I had Italian drones by the thousand. My stock of Italian drones were the only ones in the locality, so I had a good chance to test breeding in-and-in. The next season, and even that fall, there were hybrid colonies all over the country, even at the distance of 7 miles, one man had one colony. One man, 5 miles from me, wished me to introduce an Italian queen into one of his colonies. I think he had 6 and I was surprised to see 4 of them hybrids, how they came there he did not know. Others said to me, "I have your kind of bees, but where they came from I cannot tell."

All breeders of Italian queens find it very difficult to keep their stock up to the standard of purity. I obtained 5 dollar-queens (Italians) from a breeder in N. Y., which when tested proved to be hybrids, showing conclusively that there were black bees in that section.

Osakis, Minn.

For the American Bee Journal.

How to Prevent Robbing.

J. D. ENAS.

My location for surplus honey is not as good as some other sections of the State, and from the middle of June to the last of July, from 4 to 6 weeks, there appears to be no honey flow, and the weather being hot and dry, scorches what bloom is left, soon after June comes in. Our last rain is in April, or sometimes late in May, and no more, generally, before October or November. All kinds of stock depending on pasture, especially in the hills, suffer at that time. When bees can gather no honey, Italians especially go about visiting for the purpose of plunder, and woe to the colony that is not strong enough to defend its stores. I have reduced the entrance, covered the entrance with cow-chips, wet hay, brush, and, in fact, tried all remedies that ever I saw in print or heard of, without success. While the robbers were helping themselves, the colony robbed was not discouraged, but appeared to be robbing some other, and the queen was laying eggs, to be starved as they advanced to brood; no bees appeared to be killed at the entrance, as no blacks were about; they were all Italians, and they can rob when they get started.

I exchanged the places of the hives without success, until I thought of changing after dark; so while they were robbing I went to all colonies that appeared to be quiet and minding their own business and placed a single stone on the cover, then on those that were getting robbed the worst, I placed 2 stones. Then when so dark that no bees were flying, I exchanged places and put a strong colony on the stand of a weak one. Sometimes I had to repeat this, but not always. Some of those weak ones filled their hives with golden rod honey and robbing was stopped for that season. It was amusing to see the robbers when those strong colonies had fairly awakened, to know that they had callers; they mustered out at the entrance solid and were ready for business. The robber seemed to think he had made a mistake. The strong colony had not got discouraged; the robbers could not force the entrance and the weak colony not in a fighting humor, received the recruits from the strong one, which were a little too surprised at the change to interfere with the queen and inmates. Most of the old bees would go to their own stand but in the confusion of things they would gradually be at home in their own hive. I found the plan very successful, when closing the entrance did not do. I extracted as late as June 10 to keep down swarming.

Last spring my Italians took the grafting wax from my peach grafts. I also observed them gathering the worm dust from decayed oak wood, and filling their pockets instead of pollen, about Christmas. In the valley 2 miles from here, frost was quite severe, but here the mercury got below 32° only twice; the lowest was 28°. Natural bloom was 2 months behind, owing to early frosts which appeared to drive the sap down to the roots.

Napa, Cal.

For the American Bee Journal.

Bees Killed by Kindness.

B. F. WHITEAKER.

I commenced the year 1875 with 12 box hives and engaged my brother to hive the colonies in movable frame hives on shares, but the bees swarmed faster than he had the hives ready—one swarmed 5 times in one week. In the fall I had 16 colonies in movable frame and 20 in box hives. I prepared them for winter by cutting up a light bed-quilt to cover the frames; drove stakes about a foot from the hives all around except in the front, (which faced the south) and packed straw in the spaces and filled the cap with chaff and straw, and covered the hives with straw. In the spring but one colony was living and that was in a box hive. The quilts were laid down flat on the frames, leaving no ventilation. When it became cold the bees died and fell on the bottom board, filling up the spaces between the frames, the moisture fell on the bees and froze solid, closing the entrance so that I could not open it even with an iron rod. In the corners of each hive was a chunk of ice, running half way up the frames. The bees cut holes through the quilts and when they could, had crawled into the straw and died. This was murder, but such was my experience in 1875-6.

Florid, Ill., Mar. 1, 1881.

[We have no doubt your first disasters were attributable altogether to a too rapid increase.—ED.]

☞ The North Western Wisconsin Bee-keepers Association will meet at Germania Hall, LaCrosse, Wis., on Tuesday, May 10, at 10 a. m. All interested in bee-keeping are requested to be present. L. H. PAMMEL, JR., *Sec.*

☞ The next meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held at H. W. Lee's, 2 miles n.w. of Pecatonica, Winnebago county, Ills., on the 17th of May, 1881. J. STEWART, *Sec.*

☞ On account of unfavorable weather the convention at Monroe Centre, Ill., met on Feb. 8, and there being but few present, adjourned to the same place on March 29, 1881.

A. RICE, *Pres.*

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR,

CHICAGO, ILL., MAR. 16, 1881.

Watchman! Tell us of the Night.

Can you not recommend some reliable prophet, who will prophesy good weather soon? The storm is terrible; not a road in the county is passable for half a mile; the drifts are as high as the fences, and the snow full three feet on the level.

Bees are getting uneasy, and must have a flight soon. Many report heavy losses, even now; others complain that all are sick with dysentery. In my home cellar, out of about 275, 4 are slightly affected, the balance are apparently in good condition. My outside apiaries fare worse. Two weeks ago quite a number had the dysentery slightly; I should judge about 8 or 10 per cent. How they now are I cannot tell; certainly, no better. I believe that they can stand it a month longer, and my home apiary 6 weeks, but that is the limit.

We are all afraid that Vennor's prophecy of 11 feet of snow will yet be realized, unless some one can be found to contradict it. Eleven feet of snow now would last us until all our bees had died a natural death from old age. Help us out of our trouble, if you can.

GEO. GRIMM.
Jefferson, Wis., March 3, 1881.

It was with much pleasure we noticed, in last Thursday's Associated Press dispatches, evidences of Prof. Vennor's reformation. He undoubtedly has become convinced that the realization of the eleven feet of snow attributed to his prophecies, would not only cause much suffering and privation with the majority of humanity, but work serious and permanent injury to the country itself. He has relented, or probably been bribed by Mr. McColm's liberal offer in the BEE JOURNAL of March 2, page 69, and now promises us better weather in the future. His latest prediction is a reasonably early, warm, dry spring, cool, pleasant summer, and late, dry fall, followed by a mild and pleasant winter. Of course, he promises abundant crops, and a satisfactory and remunerative harvest.

But without any further reference to Prof. Vennor, and without laying any claim to the "spirit of prophecy," we believe the coming season will be a very satisfactory one to those bee-keepers who may be prepared to profit by it, and who have the industry and intelligence to make the most of it. The winter of 1879–80 was very mild and open, the scarcity of snow left the earth's surface exposed alike to the freezing temperature of night, and the pleasant sunshine of the balmy days; spring-like showers were of frequent occurrence, and heavy rains accompanied with thunder were so numerous that they ceased to create surprise; while the weird spring-music of the frogs was a familiar sound every month, and nearly every week, throughout the winter. The alternating cold and heat "threw out" the roots of the perennial plants, breaking off the long, deep-reaching taps and killing the rootlets; hence the frequent expression, "but little white clover in bloom, and no honey in the blossoms." The honey-producing annuals done but little better, owing, we presume, to the germination of the seeds in mid-winter, and the frequent frosting of the tender sprouts before spring set in. Thus, the summer and fall bloom was limited, and no provision having been made to supply the short-comings of nature, bees entered upon an unprecedented winter with a poor supply of good—or a good supply of poor—honey. The many empty hives in the country this spring is the result.

The past winter, whatever else may be said of it, has been propitious for the honey plants. Cool weather in this latitude set in during October; vegetation was checked in the perennials and biennials; the ground was frozen in November, and it was overspread with a mantle of snow quite early in the season, which has constantly held the roots of the perennials in position, and prevented the seeds of the annuals from unseasonable germination. The stand of white clover last fall was good, and mostly of quite recent growth, which should bloom profusely this season, and will only need heat and favorable sunshine to develop the nectar. The causes enumerated will also tend to confine the vitality of the linden trees to the roots, to be drawn out in profuse foliage and bloom by the genial rays of the summer sun. The numerous variety of flowers we believe will gratify the eye of every lover of the beautiful in nature, and well reward the labors of the painstaking bee-keeper. That the price of honey will be remunerative next fall no one can doubt, in view of the lessened competition, owing to the heavy losses the past winter and the many who will utilize the bees they have left to refilling their empty hives.

It would take more space than we can give a single article, to explain why we have much confidence in Prof. Vennor's latest prediction, referred to above—though perhaps "the wish is father to the thought." We feel confident many of our readers will cordially unite with us in welcoming the better time coming.

Migratory Bee-Keeping.

Why do not the enterprising bee-keepers of these parts go South with their bees, and wait till the March "blizzards" are over? Seems to me the bees and honey saved would about pay the expenses of the trip. How much does a colony need in those parts to winter on? Would there be any prospect of obtaining any surplus down there before the season opens here? These and a dozen other questions I am vainly speculating upon. Are Messrs. Bingham and Perrine the only ones that have tried the migratory plan. I believe neither of them was successful; at any rate, they have abandoned it. Probably they could not give it the necessary attention. The loss of larvæ in shipping seems but trifling compared to the gain in young bees. Considerable damage may be done by combs breaking down, but wired frames would obviate that difficulty. Is not wired foundation (wired in frames) the only kind that can be depended on under all circumstances? You report in the October number, 1880, page 468, that the Northwestern Convention disapproved of wired foundation. There were but few present that had given wired foundation a fair trial, and if I am not mistaken, they were strongly in favor of it.

H. W. FUNK.
Bloomington, Ill., March 5, 1881.

The first question is difficult to answer, as enterprising bee-keepers, like the balance of humanity, are generally governed by motives of convenience or profit. There are very few but have other business connected with bee-keeping, and this would suffer if close attention was given the migratory system. The amount of honey required to winter in the South is much less than in the North, but the quantity is governed by contingencies, as would be the question, How much honey will a colony obtain in the South in a season? Usually bees obtain considerable surplus in April and May, in some localities. Mr. Bingham, we believe, abandoned the migratory system on account of excessive freights, while Mr. Perrine met with a series of disasters from the first which would have discouraged any one. Mr. W. O. Abbott was engaged last season with a floating apiary on the Mississippi river, from which large returns were anticipated; but as nothing definite has been made public since the close of the season, we suppose it was not a success. Others have tried Southern wintering, but we have no data upon which to base conclusions, except the fact of its abandonment. The trouble has not been so much from destruction of combs, as the expense attending the removal.

A private letter from a gentleman with several hundred colonies of bees, located a short distance below Memphis, Tenn., dated March 5, says: "My colonies are mostly very strong; they are bringing in 5 kinds of pollen; many are clustering in front of their hives; most of them had large quantities of honey left over, and I could extract an average of 15 lbs. per colony with profit to the bees. Bees here are given no attention in the fall, but are left on the summer stands, sometimes with the second story over them, and often with only a honey-board. Frequently there are entrances at front and rear, and wide cracks in the sides from which bees pour out, but disaster never overtakes them except from starvation."

If a necessity exists for wires in foundation, then perhaps the wired frames are best. That but few of those in attendance at the Northwestern Convention "had given wired foundation a fair trial," was undoubtedly owing to the fact that the great majority of those present had never experienced the necessity for using wires; and it might be difficult to convince a considerable minority of the bee-keepers in the country that wired foundation is even desirable for general use. Of course, for special purposes, such as migratory bee-keeping, shipping in summer, etc., where not to be transferred from the frames, wired-frames might be very desirable.

Interesting Letter from Ceylon.

Through the courtesy of Mr. D. A. Jones, we are permitted to publish the following letter. Anything relating to the peregrinations of Mr. Benton in the far East, and any discoveries of new races of bees he may effect, will possess a great attraction for our readers. His next letter, from Singapore, will be awaited with interest.

I found on examination that every queen was alive upon my arrival in Pointe de Galle, though some of the nuclei were greatly depopulated, owing to the death of many bees, and would not have lived to reach Java had I not gotten off in Ceylon. By the next steamer I go to Singapore. I have made every effort to secure bees here, but none are kept in hives in those ports I have visited, and I do not think in any port of the Island.

Of those found in trees few can be secured, because the trees are valuable cocoanut palms, and the entrance holes are in the trunk of course, and are very small. I have obtained three hives only of the small bees, having also spent some time fixing up the bees I brought with me, and trying to find the large bees, to say nothing of searching for some place where bees could be purchased in hives or pots. The natives are far worse than Cypriotes to get along with and accomplish anything. They seem to tell lies simply for the sake of giving an answer, where no pecuniary gain could come to them. Again, they seem to wish to avoid saying "I do not know," when the Lord knows it would be the most appropriate thing for them to say in ninety-nine cases out of a hundred. The result is that it is hard work to sift the statements made by the natives, and Europeans—nearly all English—know absolutely nothing of value to us.

The new bees, which I think are also found in India and many of the East India Islands (in which case East India bees would seem to me an appropriate name), are real beauties. The workers are $\frac{3}{8}$ of an inch long, and build worker comb $\frac{5}{8}$ of an inch thick, 36 cells to the square inch. The drone comb is exactly the size, and like worker comb made by the bees already in Europe and America. The workers are brown with a very ringed abdomen, the bands to the tip of the body being broadly marked with yellow, and thorax very fuzzy, with a large shield between the wings; the drones are black, inclining to a blue-black, and are $\frac{1}{2}$ of an inch long; the queens are leather-colored, and large compared with the workers. These bees are very active, wonderful breeders, regular little beauties, and can be handled without the least smoke, scarcely ever offering to sting. It is a pity I cannot get more of them during my stay.

I am determined to find out whether *Apis dorsata* is to be found here, if time will permit, and if two more races I have heard of here really do exist. I am now where a few shillings of railway fare will bring me to the interior of the Island. More by next mail, with samples of bees and comb.

I have had a horrible time getting stung with large hornets while in the jungles. It laid me up for one whole day. These are fearful fellows, worse than those in Cyprus.

F. BENTON.
Colombo, Ceylon, Jan. 24, 1881.

☞ There are five Wednesdays in March—hence, the next number sent to Semi-Monthly subscribers will be No. 14.

☞ We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

☞ One letter sometimes makes quite a difference in the meaning of a sentence. Mr. L. James calls attention to an error in his article on page 34, in the 4th line from the bottom—the word hiving is there given as "hiding." As the sense indicated the word required, perhaps it was not generally noticed.

☞ The past week has been noted for snow storms, not only in America but also in Europe, where a winter of unusual severity is reported, with deep snows and steady frosts for months together. This winter will have a place in history, as being among the most severe as well as of the longest duration. Not alone have the bees suffered by it, but cattle, sheep, hogs, etc., have perished by the thousand from the prevalence of blizzards and deep snows.

☞ Several bee-keepers in this vicinity are considering the feasability of holding a convention in Detroit this spring. The law in regard to foul brood, which is about to be passed, makes an organization necessary. It is desirable to know how many would favor the enterprise. Will such please send me their address.

A. B. WEED.
No. 75 Bagg street, Detroit, Mich.

SELECTIONS FROM OUR LETTER BOX

Wintered Well.—I have wintered 40 colonies of Italians on the summer stands; they have wintered well.

JAMES H. DAVIS.

New Holland, Pa., March 8, 1881.

Mortality Reports.—It seems to me that the only way of profiting by the experience of bee-keepers throughout the country, this exceptionally severe winter, is to reduce their reports to a tabular statement. If they could be induced to send in these reports, in the form of brief answers, to questions like the following, we could read the history of the past winter on a single page of the BEE JOURNAL, and learn from it lessons of scientific value. I mean such questions as these:

1. How many colonies did you winter?
2. Where? (out doors or in cellar.)
3. What hive did you use?
4. How did you prepare it?
5. What entrance was left open, bottom, top, or both?
6. How late did the bees breed?
7. How many lbs. of honey were they allowed to keep?
8. When did they have their first flight?
9. How many colonies did you lose?

C. F. KROEH.

Hoboken, N. J., Mar. 5, 1881.

[It would be difficult to get up a reliable report of this kind for many reasons, chiefly, perhaps, the following: 1st. Spring does not open simultaneously all over the country, and by the time the last were heard from, the table would have lost its interest; 2d. Many are sensitive, and prefer not to give their experience; 3d. Many have partially reported already, and would scarcely care to do so again. We agree with Mr. Kroeh, a table of that description would be invaluable for reference; but it is difficult to obtain.—ED.]

Nineteen Weeks' Confinement.—Bees have at last had a purifying flight after 19 weeks' confinement. I find 28 dead from 153, I packed in chaff. Temperature has been below zero 7 times, and as low as 17° below, this winter. A few of the remaining colonies are weak and may die yet, but nearly all are strong for this season of the year. One has had dysentery since Dec. 15, but is alive yet, with a fair prospect of getting through.

H. D. BURRELL.

Bangor, Mich., March 10, 1881.

Wintered Safely.—We had a very poor season last year and the winter has been very severe. I began the last season with 18 colonies, increased to 34 and obtained about 500 lbs. of surplus. I wintered in the cellar, and lost 3 colonies with dysentery. My bees had a cleansing flight about 2 weeks ago and I think we will have no more losses this winter. There are quite a number of bee-keepers in this vicinity, but most of them report very heavy losses, some having over 100 colonies and losing nearly all. We are very much pleased with the Weekly BEE JOURNAL, and think it far superior to any Monthly.

L. E. WELCH.

Linden, Mich., March 8, 1881.

A Slim Living.—I prepared 21 colonies on Dec. 1st, for wintering on summer stands. Hives were sitting on 4 inch-blocks, and the colonies were all strong. I placed woolen blankets over the tops of the frames, then the honey-boards and covers, and left them for the winter—my usual way. Always heretofore they have come out bright. Feb. 22d I felt uneasy about them, and being a bright day, I opened the hives to find 11 dead out of 21 colonies, and the remaining 10 weak. The hives were filled with frost and ice, and blankets wet with water; 5 out of the 11 dead had Italian queens, which I purchased from Mr. A. H. Newman last summer. I am not discouraged. If I had to make a living from bees it would be slim. I can learn more in 1 week about taking care of bees from the BEE JOURNAL, than I could in 1 year without it.

EDMUND DELAIR.

Oketo, Kan., March 1, 1881.

Honey Sections.—In the BEE JOURNAL of March 2d Mr. Heddon says he prefers a section that he can press to any angle and have it solid, but I fail to see that any other angle than square is of any advantage. Again, Mr. H. asks, "Is it not better to wait and see which goes into general use?" Perhaps the following figures may show which has gone into general use, at least with our customers. I make any kind that are wanted, and therefore the figures will show which are the most desirable. In 1879, the first year that the one-piece sections were put upon the market, and at a higher price than other kinds, my sales were:

104,578 one piece sections.
124,058 dovetailed.
38,270 nailed.

In 1880, the following are the figures:

233,898 one-piece sections.
47,980 dovetailed.
50,950 nailed.

According to Mr. Heddon's test, therefore, the one-piece sections are the most desirable, because they have gone into general use.

G. B. LEWIS.

Watertown, Wis., March 8, 1881.

Bees in Good Condition.—The Weekly BEE JOURNAL is a welcome visitor and is the first paper I read when I return home on Friday evening. It is a friend that introduces me to my fellow bee-keepers, and their manner of manipulating our pets. My bees are in good spirits, yet they had but 2 flights this winter. I have them packed in a shed in new Langstroth hives, manipulating sides. They are 6 inches apart and packed all around with straw, excepting the fronts. They face the south, with a division board on each side of the frames, leaving a dead air space.

JOHN W. STURWOLD.

Haymond, Ind., Feb. 7, 1881.

Wintered Without Loss.—I have kept bees for 7 years and my greatest trouble has been wintering them, but I think I have that perfect now. I winter on summer stands packed in chaff. Last fall I had 72 colonies, and on Feb. 9 all were right. I think I shall have to feed them. Last fall some had 15 lbs. and others 25 lbs of honey; that is if bees and comb weighed 10 lbs. The combs were all new, and it may be that 10 lbs. was allowing too much.

GEORGE WICKWIRE.

Weston Mills, N. Y., March 4, 1881.

Mourning for the Bees.—It is lamentable to hear the reports throughout this country. Some have lost all; others all but 1 or 2. I think about four-fifths of the bees are dead through this country; as nearly all left their bees unprotected, they had to suffer losses. But I think the present winter will in part decide the best methods of wintering. I started last spring with 4 colonies, increased to 6, but obtained no surplus. In Sept. I bought 2 Italian colonies which are doing well. I packed 2 in chaff and 6 I put into the cellar, but 2 of these died, 1 starved, and the other had the dysentery. Those packed in chaff had a good flight on Feb. 26. Those in the cellar had no flight since Nov. 1. The weather is now breaking up, the snow has nearly all gone, and the roads are muddy. I am highly pleased with the Weekly BEE JOURNAL. I could not be persuaded to do without it.

H. CRIPE.

North Manchester, Ind., Mar., 8, 1881.

Wintering.—My experience of over 25 years in trying all modes of wintering is as follows: On summer stands, and in the cellar for 10 years; I then built a house to winter in, used that 2 years and then abandoned it. The last 3 years I have been using the chaff hive and winter on summer stands, with the least loss of any way I have tried. My bees had a splendid fly on the 11th, it being the first chance for them since the 8th of Nov. I think they will go through all right now unless we have a very late spring. I prepared 148 colonies for winter, (123 in chaff hives and 25 in the common box hive.) I have lost but one in chaff hive yet, and 10 in the box hive already, and doubt if one-half of what are left will see the middle of April. I wish to congratulate our editor on the success of the BEE JOURNAL. I have received it regular since assuming its new form, and think it just splendid, and if I had but 1 colony of bees I would try to take the Weekly BEE JOURNAL to aid me to make a success of that 1. I hope the editor may be liberally supported by the bee-keepers of America, for I believe with his experience and that of his able contributors, he can give us a paper that we cannot afford to do without.

J. M. FRANCE.

Auburn, Pa. Feb. 24, 1881.

Vexations to Sell Honey.—I only realized $300 last year from my bees. I put 50 colonies in winter quarters in the fall of 1879; lost none, but doubled up on account of queenlessness, weakness, etc., to 45, all in first class order. I bought 50 colonies in old-fashioned Langstroth hives; they were wintered in a good cellar, and were, with a few exceptions, weak in bees, combs in bad order, short of stores, and badly managed the preceding season. I united them down to 27 before I moved them. At the beginning of honey harvest (basswood bloom) I doubled up to 15, so that when the honey season opened I had 60 first class colonies, and obtained 3,500 lbs. of summer honey. I extracted only once. I increased by natural swarming to 88, and at the close of the season doubled up to 74. I have lost 1 this winter through my own fault. I winter out-doors, but would winter in-doors if I had a proper place. I sell nearly all my honey to the consumers, but confess this is a vexatious way of disposing of it; it is the most annoying part of the business; in fact, I feel disgusted when I think of it. People cry fraud, fraud, when there is no fraud; but when a spurious article is offered, they swallow it as quietly as desired.

GEORGE W. HORNER.

Dubuque, Iowa, Feb. 15, 1881.

Prospects Better.—This has been a fine day; my bees had a cleansing flight to-day. They are all alive and strong, and seem to be in splendid condition, with plenty of honey and perfectly dry. I think all the danger is over with them now. I am in favor of double-walled hives, but not packed with chaff, for I have noticed that where there is chaff there is frost on the inside wall. I prefer a dead air space, for then it is always dry. What is the use of changing black bees for Italians, if Mr. Loucks, of California, can get so much honey from the black bees, they surely must be the "boss" bees? I think we had better take our bees to California, where milk and honey flows.

DAVID HOHENSHELL.

Collins, Ill., March 6, 1881.

All Alive.—My bees are all alive and in fine condition. They were wintered out of doors, in shed, packed around with straw, but open to the east.

J. R. MEAD.

Wichita, Kas., March 7, 1881.

Winter yet in Kentucky.—Bees are wintering very badly here, and 2 of my neighbors have lost all they had. The ground is covered with snow, and looks as much like winter as it did a month ago.

A. E. FOSTER.

Covington, Ky., March 5, 1881.

No Surplus nor Increase.—This has been a hard winter on the bees. I think all that were not protected and those partially protected will die. There was no surplus nor increase here worth mentioning, last summer.

JAMES NIPE.

Spring Prairie, Wis., Feb. 26, 1881.

Great Loss of Bees.—The bees in McDonough county that were wintered on the summer stands are nearly all dead. Those in double-walled hives, and those packed in straw, dying the same as those in single-walled hives. My loss is about 95 out of 100.

S. H. BLACK.

Sciota, Ill., March 5, 1881.

Bees in Prime Condition.—I have 110 colonies in the cellar in prime condition. Nearly all bees out doors are dead.

C. H. DIBBERN.

Milan, Ill. Mar. 9, 1881.

Paris Green.—It is not very good for bees, as I had an opportunity last spring to find out. I have in my garden a 10 year old plum tree that never perfected any fruit and knowing that Paris green would kill bugs I thought it might also kill the "little turk," or Curculio. Acting upon the suggestion I mixed some Paris green in a watering can and put up through the branches of the tree a long ladder, from the top of which I sprinkled the whole top of the tree just before dark, and a day or 2 before the bloom went off. Next day afternoon as I was passing through my bee yard I was very much surprised to see on the ground a good many bees in a dying condition which I could not account for. I came at last, however, to the conclusion that they had gone to the plum tree in the morning before it was dry and partaken of the poison. I lost a good many bees but I have learned this lesson, "never to put Paris green on trees when in bloom;" still I am satisfied that by sprinkling or syringing 2 or 3 times, when the plum is in its incipient state, it will insure a crop. Who will try this spring and report?

GEO. THOMPSON.

Geneva, Ill.

Making Progress.—Although behind some other States, yet we have made some progress. Bees seem to do best in the newer counties, where the timber has not been cut off. It might be supposed that the northern portion of this State was not favorable for bees, but Aroostook county, in the extreme north, produces nearly as much honey as all the other 15 counties, and the honey is put up in the most marketable shape; but I fear the bees are not protected as they should be in this northern climate. We have had a cold winter, and the loss has been very great. I winter my bees in the cellar with success, and obtain much pleasure, as well as profit, from the time I devote to them. The Weekly BEE JOURNAL is my constant companion.

ISAAC F. PLUMMER.

Augusta, Maine.

Not Discouraged.—Should I be persuaded to give up the business of keeping bees for profit, I do not know what I could find that would pay better. I have 25 colonies in good condition and every one in this town wants honey, and I shall try to supply it to them.

Osage, Iowa. CHARLES FOLLETT.

Lost but 4 out of 273.—My bees are wintering well; I have lost but 4 out of 273 colonies, wintered on the summer stands, packed with sawdust and planer shavings. It has paid me to advertise in the Weekly BEE JOURNAL. I have all the work I can do.

A. E. MANUM.

Bristol, Vt., March 9, 1881.

Dead Bees in the Cells.—I took 6 combs out of 2 hives in which the bees died, that had plenty of honey in the 2 outside frames. In every cell of the 3 middle frames is a dead bee. I tried to pick them out with a pin, but gave it up for a bad job. Is there a way to clean them? Can I use the combs again next spring? Please let me know in next JOURNAL.

JOHN W. STURWOLD.

Haymond, Ind., March 11, 1881.

[You will find our method given in answer to Mr. Phillips, page 86 of this number. The combs can be used again this spring.—ED.]

Progressing.—My bees are getting along well. I have lost 3 weak colonies that were left unprotected; but it was my own fault. A hive peddler was in this section this winter selling hives without frames. I showed him my hives, similar to the Langstroth, and he took the measure of it, and said I was "well fixed" for bee-keeping. He never said a word about selling his hive to me. I do not know how many he sold.

JOHN BOERSTLER.

Gilead, Ill., Feb. 26, 1881.

Moldy Combs, Etc.—Having lost a few colonies of bees the past winter, I wish to make the best use of the combs left, as they are mostly new. Some are moldy, what shall I do with them? Some of the cells are full of dead bees, how shall I get them out? How can I keep the moths out of the combs until I can use them? An answer to these questions through the Weekly, at an early day, will no doubt benefit many new beginners.
O. Phillips.
Emporia, Kans., March 2, 1881.

[When your colonies are strong in the spring, give the moldy combs; they will soon utilize them, if not given too fast. The combs with dead bees should be kept in a dry place, and after the bees have become dried and shrunken, you can easily shake them out of the cells. If moths get in the combs, treat them in the manner suggested by Mr. Doolittle, page 74, Bee Journal of March 9th. One pound of sulphur, however, to each 100 cubic feet, seems a large amount; this would require 10 lbs. for a room 10 feet square. We have had no experience in sulphuring combs, but think 1 lb. would be sufficient for 1,000 cubic feet, in a close room.—Ed.]

Palestine Bees.—We are having a hard winter on bees; they have not had a fly since last Oct. 28. Bees that were here kept in old-style boxes are nearly all dead, many that were packed in chaff are dead or have the dysentery, and are flying out on our coldest days, and of course never return. My bees that are in chaff tenement hives are in the best condition of any I have seen. My Palestine bees are standing the lonely confinement in the hives better than the Italians; they are quieter, and do not fly out so much and get lost on the snow. I much like the Weekly Bee Journal, and when I got the Journal of Feb. 2d out of the office I felt like grasping the hand of the Editor, and having a shake, but alas it was not flesh and blood, but a very good likeness. Many thanks for giving us a chance to view it.
I. R. Good.
Napanee, Ind., Feb. 2, 1881.

Honey as Medicine.—I wish to compile for publication an exhibit of the medicinal qualities of the various kinds of honey, and I shall be obliged for any facts sent me on the subject. Chaff-packing seems to be ahead here this winter, but I notice a great difference in the wintering capacity of several colonies. All of mine which were devoted to the production of honey are doing well, but I have lost by excessive early breeding, and some that were used to rear queens. They had no flight for 4 months.
T. L. Von Dorn.
S Ave., Omaha, Neb., March 9, 1881.

Gathering Pollen.--Last season proved a splendid one for bees. Each colony averaged 72 lbs. of surplus sweet honey, and from 20 to 40 lbs. of bitter. My bees are blacks, and to-day are out gathering pollen and some honey.
E. P. Massey.
Waco, Texas. March 1, 1881.

Anxious for Spring.—The Monthly was good, but a more frequent visitor, in the shape of the Weekly, is better. It brings fresh news, ready for use. I spent an hour in my cellar, last evening, examining my bees. I was heart-sick at the condition in which I found them. I had about 40 colonies in the fall; at least one-half of them are dead. I have an excellent cellar, especially for my bees, and have not lost a colony before for 5 or 6 years. I began to think that losing bees in winter was an unnecessary thing, but I see that I was mistaken, for my bees did not lack for care in any particular. The death of mine is from dysentery. The small amount of honey collected in this vicinity last year was a very poor quality, as is seen from the fact that it has not candied during the winter. I extracted about 300 lbs, and put it away in glass jars, and it looks like so much New Orleans molasses. My friend, Mr. Bischoff, had about 40 colonies in the fall; all are now dead but 6. They were left on their summer stands. Mr. B. is lonesome and wants my bees put in his apiary next summer to keep him company, but it remains yet to be seen if I will have any left to keep up a humming in my own apiary. I met Mr. Gardener, of this city, the other day, and he reports all of his 16 colonies dead. Several other bee-men have told me that but few, if any, of their bees are alive. Winter still holds on with an iron grasp. Our bees so much need a cleansing flight. I am anxiously waiting for some warm days.
I. P. Wilson.
Burlington, Iowa, March 4, 1881.

Died of Disease.—I have lost about all the bees I had, yet I love to hear of other's success in the bee business, and read of others' way of management; but I am convinced that my bees died of some disease, the same as Mr. Carver reported from Greencastle, Indiana, although bees have not died so universally throughout this country as mine have. I have the hives and combs left, with lots of honey in them; these I can sell for something, perhaps, or melt them into wax, or get a few colonies of bees to begin anew, but it is very poor encouragement to put much stock in bees, the way it looks now.
D. W. Fletcher.
Lansingville, N. Y., Mar. 4, 1881.

Cyprians Ahead.—Bees doing well; they are commencing to work on plum-bloom; they have brood in all stages. In an average of over 30 colonies of Cyprians, they are farther ahead in brood-rearing than the Italians. The latter have had the same chance as the former. Am very busy now, preparing for queen-rearing.
J. H. P. Brown
Augusta, Ga., March 2, 1881.

An Early Season.—I see from reports in our new Weekly Journal that bees are dying throughout the north and west more than usual, from short stores and intense cold. I may say that we have had an unprecedented cold winter here, the thermometer at one time ranged, for a few hours, as low as 18° above zero, but soon struggled back to about 25° below. Last fall our bees gathered a full supply of fall honey, and none will die from cold or starve out that are worth saving. The winter being wet, white clover is coming out very thick over the ground; maple, elm, plum and wild cherry are now in bloom, as well as heads of white clover are pushing out their lovely forms to the genial sun. Bees usually work on white clover here by the 10th of this month; but this year our honey season will be much later. May the "new departure" prosper and lead us forward to perfection.
J. W. Winder.
Thibodaux, La., Feb. 10, 1881.

[Mr. Winder enclosed us some white clover blossoms of this year's growth. The sight of the modest flowers is refreshing, while from our office windows the earth looks bleak and gloomy with its deep mantle of snow.—Ed.]

Gone back on him.—I had 30 colonies of bees—most of them Italians—last fall, in Langstroth hives, packed in this way: The ends of my hives are double-walled, and the sides are made double in winter by the use of division boards, in place of 2 frames, leaving but 8 frames. I then use a crate made of laths, which sets down around the hive so as to leave a space of about 8 inches for packing between it and the hive on the sides and back end. This space I fill with a packing of fine straw and leaves mixed, and packed hard when just a little damp. Then strips of board are fitted so as to protect the top of the straw from rain or snow; next a blanket over the frames and 6 inches of chaff over that, protected by the cap, in which are openings, so as to give free circulation of air above the chaff. The entrance is kept open enough for a good supply of air. In this way I have heretofore had good success in wintering on summer stands; but this winter it has gone back on me. Until last Saturday, the 5th inst., there has been no day warm enough for bees to fly for some months. Many did come out, even on the coldest days, but of course could live but a few moments out of the hive. I let them entirely alone, except to see that the entrances were free, until day before yesterday, when it was warm enough for bees to fly. I looked them over and found only twelve of them alive; only 4 of these are in good condition, the others are weak and the hives a good deal soiled. Now, what puzzles me is this. They were all, apparently, very nearly alike last October, and now 4 of them are in perfect condition while all the others were bad. Now, while the four exceptions out of 30? I am glad for them, but would like to understand the reason. Can you tell us, Mr. Editor? They have evidently not been cold, and have had plenty of honey. In the dead ones I have examined I find brood in a hatching state, with half or more of the cells empty, indicating that young bees had hatched. I attribute the disaster to long confinement, but why the 4 exceptions? I say amen to all the compliments you publish from your subscribers for the Bee Journal.
D. K. Boutelle.
Lake City, Minn., March 7, 1881.

[Probably during some of the milder days of winter the bees became scattered in their hives, the weather suddenly changed, and they perished before they could form their cluster on honey, and thus starved.—Ed.]

From Florida.—The Bee Journal is at hand; we do not know how we could do without it. The past has been a very good honey season here. We have 255 colonies of bees in Langstroth hives. Some are Italians—we like them as honey-gatherers, but they are crosser than our natives. We obtained 850 galls. honey, and 500 lbs. wax. The latter we obtained from about 90 hives which we transferred. We think apiculture will pay here with good management. We extracted from one colony 32 Langstroth frames well filled with honey. Our apiary is located on a "gum" swamp, 5 or 6 miles wide and 15 or 20 miles long, which is our main honey source, and blooms from April 15 till May 15; we also have many other honey producing flowers. We have a vine which grows in the swamps and yields a great deal of amber-colored honey. We inclose a sprig—please give the name.
Alderman & Roberts.
Wewahitchka, Fla.

[The vine you send is commonly known as snow vine, and is quite abundant in several of the Southern States.—Ed.]

Bee Feeding.—I have thus far used the "bag feeder," of our friend Prof. Cook, with this addition: I have a long tin tube, shaped like the handle to a water-dipper, long enough to reach through the bag of chaff and empty into the bag; then, with the aid of a funnel, I can daily place the warm food within reach of the bees without disturbing them or letting out the heat—so precious in early spring to a depleted colony. Have never tried the Professor's "Perfection"—thought I saw objections to it. If any of our more experienced bee-keepers have devised a "better way," please tell me through "our" Journal.
E. M. R.
Flint, Mich., March 4, 1881.

Introduced a Queen.—Bad luck to bees in this valley of the Ohio. Of 32 colonies in Langstroth hives, 18 now remain, and the 4th day of March a perfect "blizzard" all day, so I fear I will lose more from spring dwindling. I found, one day in February, all the bees dead but two, and the queen nearly gone, in one hive, but plenty of honey. I had a queenless colony, and laid these 3 bees on the frames to see if they would come to life; they became warm and crept down among the bees. The next warm spell I looked, and the yellow queen was safe among the black bees. A novel way to introduce a queen in February.
G. W. Ashby.
Valley Station, Ky., March 5, 1881.

Loss 88 per cent.—The loss of bees in Wayne and Randolph counties is heavy—about 88 per cent. Our bees had a fly Feb. 26th, the first for 111 days. We have reports from 1400 colonies (November count) and March 1st finds them all dead but 171. The Italians have come through better than the blacks. Those packed in chaff on summer stands have wintered better than any other mode in this locality. There is a great call for bees here by parties that are wanting to start again. Our loss is 4 out of 15 colonies, all in chaff hives.
M. G. Reynolds.
Williamsburg, Ind., March 7. 1881.

First Year's Experience.—Bees done poorly here last season. There was an abundance of bloom, but too much rain. I sowed 1 acre of buckwheat; while this lasted my bees stored more honey than at any other time in the season; I think it an excellent honey plant. Pumpkin blossoms yield considerable honey; would it pay to plant them all over a field of corn? My bees are packed in chaff, and they are all in good condition at present. They have not had a flight since the 1st of Nov. Success to the Weekly Bee Journal; I like it better than the Monthly.
Wm. Hagan.
Holly, Mich., Jan. 18, 1881.

[Pumpkin blossoms yield a rich, but strongly flavored honey; we think the pumpkins would be remunerative for their cultivation to feed to stock, and that the honey obtained from the blossoms would be a net profit.—Ed.]

Summer a long way off.—This winter has been, so far, the most severe known for many years in this part of the State. Snow-storm has followed snow-storm, and cold spell has followed cold spell, until now there is more snow on the ground than we have had altogether for 6 or 7 years. And the poor bees! how have they fared through all the snow and cold? Badly, I fear from the reports I hear every few days; but so far as heard from, where they were properly cared for, either in cellar or on summer stands. they are doing quite well; but summer is a long way off.
Harry G. Burnet.
Blairstown, Iowa, March 5, 1881.

A Little Discouraged.—I am a little discouraged this spring. I put 54 colonies into winter quarters last fall and now have but 23, and some of them are weak. Those in my bee-house suffered the worst. I had 20 colonies on the summer stands, packed with cut straw. and lost 6 of them by dysentery and starvation. If bees are strong in numbers and have plenty of honey, I can see that there is no danger of loss. Last season it was so dry here that the white clover dried up, and the bees could get but little honey, and what they did gather was very dark. I am glad to receive the Bee Journal weekly now; the news comes and seems so *fresh*. I hope it will be well supported.
J. W. Rikie.
Mont Clair, N. J., March 6, 1881.

Why Did They Die?—Last fall I put my bees into a dry cellar; some of them had 75 lbs. of honey, and in 4 or 5 weeks there were many dead bees. I cleaned them up but in a few weeks more they all died; what was the cause of this? Over 80 per cent. of all the bees in this vicinity are dead.
R. L. Holman.
Springfield, Ohio, Feb. 19, 1881.

[Your colonies were strong, had a large quantity of honey, and the cellar was too warm; they commenced breeding, became uneasy, and left their hives from disquietude.—Ed.]

Wintered Without Loss.—I packed 41 colonies and they are now all living, and nearly all appear to be in good condition. My bees are flying to-day. Many bee-keepers in this country have lost heavily, and are much disheartened. I hope to be able to make a good showing when I report again, say about May 1.
J. J. Roe.
Buchanan, Mich., March 9, 1881.

CONVENTION NOTES

Champlain Valley, Vt., Convention.

This Association held its winter meeting at Brandon, Vt., on Jan. 20, 21, 1881. Pres. Crane in the chair. Col. H. H. Merritt gave an address of welcome, to which Pres. Crane replied, stating the object of the meeting and giving a brief narration of the ancient history of the honey bee, and of its improved management in the present age.

Mr. A. E. Manum said success depended on the man and circumstances. The bee-keeper should be a person of even temperament—not easily excited—should be somewhat acquainted with botany; and recommended small section boxes, to hold not more than 2 lbs. Everything should be kept ready and in order. He gave estimate of produce in a good season with Italian bees, and also a poor season like the past.

Mr. O. C. Wait, of Georgia, said that experience had shown that bee-keeping was no mystery or slight of hand, but a clear, plain, practical science. Bee-keepers were an intelligent, enterprising class of men; men of progress. No intelligent man would destroy his bees.

After some discussion Mr. Manum exhibited some of his honey boxes, and explained their uses and advantages.

Bees were advantageous in the orchard, and to the buckwheat crop, as he had satisfactorily demonstrated. Some doubts had been expressed to the value of the red clover blossom on account of the inability of the bee to reach the nectary; Italians have the advantage over black bees, because they are provided with greater length of probosis.

Pres. Crane said he had noticed bees working in red clover early and late in the season; bees will not work where they get no honey.

In the evening, after a few preliminaries, Mr. E. A. Hasseltine read a sensible and witty poem on "Prospects and Retrospects," which was well received by the audience.

The talk on Sweets, by Prof. Seely, was a learned dissertation on the chemical properties and qualities of the various kinds of sweets that are offered in our markets. He exhibited over 20 different kinds of sugar; spoke of the various substances from which sugar was extracted, as trees, plants, roots and fruits; some specimens would solidify sooner than others; sugar from cane, corn, beets and maple, were all of the same chemical formation.

J. E. Crane spoke on the Individuality of Bees; there was a marked difference in the character of colonies, some were industrions, others not so; some prefer some kinds of flowers, others reject them; Italians dislike buckwheat, while black bees work well on it. Every colony has some peculiar character. He showed several samples of honey from different flowers, and explained their various qualities, and also exhibited specimens of bees from the Holy Land.

Dr. F. Bond said that the Creator had placed the sweets in flowers to attract the bee, to carry out nature's laws, by carrying the fertilizing pollen to the unfertile flower, and thus showing a wise and benificent Providence.

On Friday, Jan. 21, after some preliminary business, the following were elected officers for the ensuing year: President, J. E. Crane; Vice-Presidents, H. L. Ltonard, E. P. Wolcott, E. A. Hasseltine; Secretery and Treasurer, Hon. T. Brookins.

Mr. O. C. Wait spoke of the bad condition he found honey in the Boston market, and of the manner of awarding premiums at fairs.

Mr. Manum remarked that it was important to have good queens, he advised all to raise their own; old queens were best to rear queens from, say 2 years old or more; it is best to rear queens in warm weather, when honey is plenty.

The question "how to prevent bees from dwindling" Mr. Leonard answered thus: In this case as in all other ills to which bee-keepers are heir to, keep the colony strong and healthy. Mr. Leonard read an essay on "Bee-culture for Women," giving instances of marked success. He said women in Vermont were as capable and had as good facilities as in any part of the country, and would succeed as well, if attended to.

Adjourned to meet at Bristol, Vt., in May next. T. BROOKINS, *Sec.*

Local Convention Directory.

1881. *Time and Place of Meeting.*

April 2—S. W. Iowa, at Corning, Iowa.
5—Central Kentucky, at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
7—N. W. Ohio, at Delta, Ohio.
13—N. W. Missouri, at St. Joseph, Mo.
D. G. Parker, Pres., St. Joseph, Mo.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 18—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both :

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
Bee-Keepers' Magazine (A.J.King)	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T.G.Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 18@20c. for strictly choice white comb in 1 and 2 lb. boxes ; at 14@16c. for fair to good in large packages, and at 10@12c. for common dark-colored and broken lots.—*Chicago Times.*

BEESWAX.—Choice yellow, 20@24c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 17@18c.; fair do., 15@16c.; dark do., 12@13 ; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 80@85c.

BEESWAX.—Prime quality, 20@23c.

CINCINNATI.

HONEY.—The market for extracted clover honey is very good, and in demand at 11c. for the best, and 8@9c. for basswood and dark honey. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@24c. C. F. MUTH.

SAN FRANCISCO.

HONEY.—Extracted is in large supply for the season, and purchasers for round lots difficult to find, except at extremely low prices. We quote white comb, 12@15c.; dark to good, 10@11c. Extracted, choice to extra white, 6@6½c.; dark and candied, 5@5½c.

BEESWAX—21@22½c., as to color.

STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., March 4, 1881.

SPECIAL NOTICES.

☞ Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

☞ "What is the meaning of 'Dec. 81' after my name on the direction-label of my paper ?" This question has been asked by several, and to save answering each one, let us here say : It means that you have paid for the full year, or until "Dec. 31, 1881." "June 81" means that the first half of the year is paid for, up to "July 1st." Any other month, the same.

◆

☞ We will send sample copies to any who feel disposed to make up clubs for 1881. There are persons keeping bees in every neighborhood who would be benefitted by reading the JOURNAL. and by using a little of the personal influence possessed by almost every one, a club can be gotten up in every neighborhood in America. Farmers have had large crops, high prices, and a good demand for all the products of the farm. therefore can well afford to add the BEE JOURNAL to their list of papers for 1881.

◆

HUNDREDS OF MEN, WOMEN AND CHILDREN rescued from beds of pain, sickness and almost death and made strong and hearty by Parker's Ginger Tonic are the best evidences in the world of its sterling worth. You can find these in every community.—POST. See advertisement. 9w4t

☞ When changing a postoffice address, mention the *old* address as well as the new one.

◆

☞ We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

◆

☞ The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

◆

☞ Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

◆

☞ Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

◆

LADIES WHO APPRECIATE ELEGANCE and purity are using Parker's Hair Balsam. It is the best article sold for restoring gray hair to its original color and beauty.

◆

☞ The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

◆

PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture ;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth ; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

◆

☞ Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

☞ Any one desiring to get a copy of the Constitution and By-Laws of the National Society, can do so by sending a stamp to this office to pay postage. If they desire to become members, a fee of $1.00 should accompany it, and the name will be duly recorded. This notice is given at the request of the Executive Committee.

◆

☞ It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Postoffice, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

☞ At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each : Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

◆

☞ We have filled orders for quite a number of Binders for the Weekly BEE JOURNAL. We put the price low, 30 per cent. less than any one else could afford to sell them, for we get them by the quantity at wholesale and sell them at just enough to cover the cost and postage, the latter being 21 to 23 cents, on each. We do this to induce as many as possible to get them, and preserve their Weekly numbers. They are exceedingly convenient; the JOURNAL being always bound and handy for reference. The directions for binding are sent with each one.

Books for Bee-Keepers.

Cook's Manual of the Apiary.—Entirely re-written, greatly enlarged and elegantly illustrated, and is fully up with the times on every conceivable subject that interests the apiarist. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, **$1.25** ; paper covers, **$1.00**, postpaid. Per dozen, by express, cloth, $12.; paper, $9.50.

Quinby's New Bee-Keeping, by L. C. Root.—The author has treated the subject of bee-keeping in a manner that cannot fail to interest all. Its style is plain and forcible, making all its readers sensible of the fact that the author is really the master of the subject. Price, **$1.50.**

Novice's A B C of Bee-Culture, by A. I. Root. This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, **$1.25**; paper, **$1.00.**

King's Bee-Keepers' Text-Book, by A. J King.—This edition is revised and brought down to the present time. Cloth, **$1.00**; paper, **75c.**

Langstroth on the Hive and Honey Bee. This is a standard scientific work. Price, **$2.00.**

Blessed Bees, by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, **$1.00.**

Bee-Culture ; or Successful Management of the Apiary, by Thomas G. Newman.—This pamphlet embraces the following subjects : The Location of the Apiary—Honey Plants—Queen Rearing—Feeding—Swarming—Dividing—Transferring—Italianizing—Introducing Queens—Extracting—Quieting and Handling Bees—The Newest Method of Preparing Honey for Market, etc. It is published in **English** and **German.** Price for either edition, **40 cents**, postpaid, or $3.00 per dozen.

Food Adulteration ; What we eat and should not eat. This book should be in every family, where it ought to create a sentiment against the adulteration of food products, and demand a law to protect consumers against the many health-destroying adulterations offered as food. 200 pages. Paper, **50c.**

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Honey, as Food and Medicine, by Thomas G. Newman.—This is a pamphlet of 24 pages, discoursing upon the Ancient History of Bees and Honey ; the nature, quality, sources, and preparation of Honey for the Market ; Honey as an article of food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, &c.; and Honey as Medicine, followed by many useful Recipes. It is intended for consumers, and should be scattered by thousands all over the country, and thus assist in creating a demand for honey. Published in **English** and **German.** Price for either edition, **6c.**; per dozen, **50c.**

Wintering Bees.—This pamphlet contains all the Prize Essays on this important subject, that were read before the Centennial Bee-Keepers' Association. The Prize—$25 in gold—was awarded to Prof. Cook's Essay, which is given in full. Price, **10c.**

Bees and their Management. This pamphlet was issued by the Italian Bee Company, and has had a large circulation. The price has been reduced from 20 cents to **10 cents.**

The Hive I Use—Being a description of the hive used by G. M. Doolittle. Price, **5c.**

Kendall's Horse Book—No book can be more useful to horse owners. It has 35 engravings, illustrating positions of sick hoses, and treats all diseases in a plain and comprehensive manner. It has a large number of good recipes, a table of doses, and much other valuable horse information. Paper, **25c.**

Chicken Cholera, by A. J. Hill,—A treatise on its cause, symptoms and cure. Price, **25c.**

Moore's Universal Assistant contains information on every conceivable subject, as well as receipts for almost everything that could be desired. We doubt if any one could be induced to do without it, after having spent a few hours in looking it through. It contains 480 pages, and 500 engravings. Cloth, **$2.50.**

Ropp's Easy Calculator.—These are handy tables for all kinds of merchandise and interest. It is really a lightning calculator, nicely bound, with slate and pocket for papers. In cloth, **$1.00** ; Morocco, **$1.50.** Cheap edition, without slate, **50c.**

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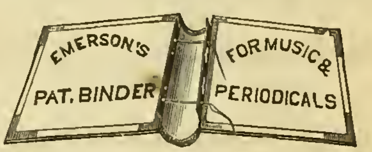

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Cloth and paper, each........................50c.
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☞ We can also furnish the Binder for any Paper or Magazine desired.

THOMAS G. NEWMAN,
974 West Madison Street, **Chicago, Ill.**

HONEY WANTED.—I desire to purchase several barrels of dark extracted honey, and a few of light ; also, Comb Honey. Those having any for sale are invited to correspond, giving particulars.

ALFRED H. NEWMAN
972 West Madison street, CHICAGO ILL.

THE BRITISH BEE JOURNAL,

AND BEE-KEEPER'S ADVISER.

The *British Bee Journal* is published monthly at $1.75, and contains the best practical information for the time being, showing what to do, and when and how to do do it. **C. N. ABBOTT**, Bee Master, School of Apiculture, Fairlawn, Southall, London.

THE AMERICAN BEE JOURNAL

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One to three weeks,	each insertion,	**20**	cts.	per line.
Four	" or more"	"	**18**	"	"
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THOMAS G. NEWMAN,
974 West Madison Street., Chicago, Ill.

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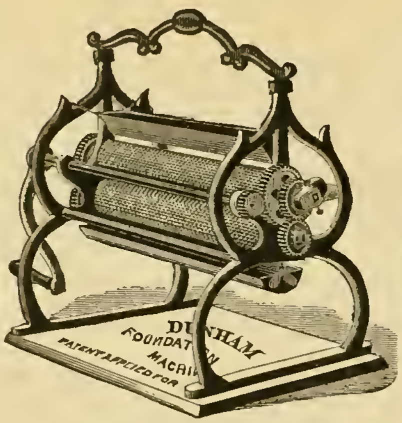

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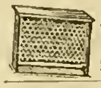

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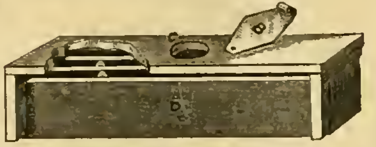

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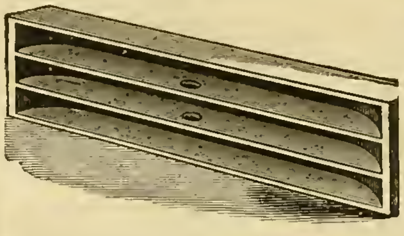

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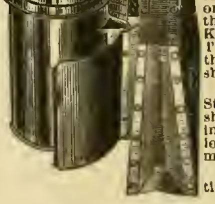

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DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., MARCH 23, 1881. No. 12.

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CORRESPONDENCE.

For the American Bee Journal

What is the Royal Jelly?

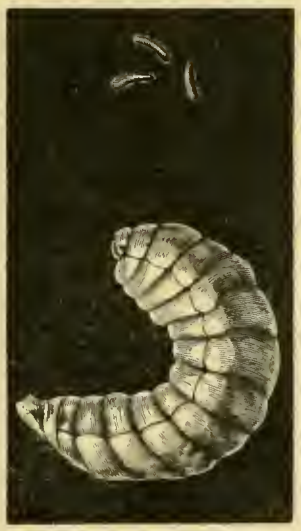
C. J. ROBINSON.

I propose, by permission, to discuss in the columns of the BEE JOURNAL the hitherto puzzling problem: "What is royal jelly, that substance known to produce the transformation of worker larvæ to queens?" Profound scientists of Europe and this country have delved into the secrets of the grand problem, but none of them have handed down a satisfactory solution. Yet, it does not seem rational that the question is so obstruse as to forever remain past finding out what the so-called royal jelly consists of; the source from which it is derived; its definite action on larvæ and whether it is administered by the workers as a nourshing aliment to larvæ in royal cells, or for the purpose of impregnating the larvæ (as pistilliferous flowers are impregnated with pollen) and thus develop a female bee fully qualified to reproduce males. The settled doctrine of writers on bee-matters is that it is chiefly due to the excess of food served to the larva by the workers that produces the transformation from worker to queen. Still no writer has ventured to assert that such is a demonstrated fact. The late Baron of Berlepsch, the able expounder of the Dzierzon Theory, and the most scientific and practical apicultural writer and experienced apiarist in all Europe, wrote thus:

"Every hypothesis, however, yet submitted from any quarter, rest chiefly upon the assumption that the development (of fertile workers and queens) has by some means been over-stimulated for a brief period, and as the result affects the sexual organs more especially, the quantity and quality of the food administered has been looked to as the exciting cause."

If his assumption be admitted then individual female bees are very likely to be reproduced imperfectly developed in all the degrees between a rudimentary fertile worker up to a perfect queen. Furthermore, were it true that development depends on quantity of food or the over-stimulating caused by high feeding, the workers would be able to supply themselves with queens at all times; when on the contrary it is well known that workers cannot always perfect queens when furnished with everything necessary for that purpose except the impregnating principle—semen.

A full knowledge of the reproduction of the honey bee is of great importance, and at the very foundation of the science of bee-culture and of great value to those who intend to breed the superior races of bees, especially the principles of hybridizing so as to prevent their deterioration and improve the breeds. And it is of great moment to the science of entomology to determine whether insects are produced by parthenogenesis, as is believed, or by semen received by the male progenitors. As for myself, I have conclusive evidence that such queens as are reproduced by furnishing a colony of black bees with eggs laid by an Italian queen, is in some degree hybridized.



EGGS AND LARVA.

All of the points in the "Dzierzon Theory" have been demonstrated except his theory of the reproduction of bees, particularly drones and queens. It seems that he was sorely puzzled in his profound research to comprehend the laws involved in the strange phenomena—virgin queens reproducing male bees—and to dispose of the (to him) inexplicable point in his colossal theory, he jumped at a conclusion which was based upon the hypothetical doctrine advanced by Professors Von Seibold, Leuckart, and Dr. Donhoff, the fathers of the theory called "Parthenogenesis," that is procreating without male sperm. It was during the period that Dr. Dzierzon was making public his theory that Mr. Elihu Kirby, of Henrietta, N. Y., attempted to make known the result of his long-time and attentive research into the principles of reproduction of the different races of honey bees. He was a scientific apiarist of long experience, and enthusiastic in the cause of progressive bee-culture. Not until 1861 was there published or circulated in this country a periodical devoted to bee affairs and scarcely no attention was given to scientific bee-culture at that time. Mr. K. communicated to the AMERICAN BEE JOURNAL at different times just after its advent, the discoveries he had made relative to the reproduction of bees, but not much attention was given it further than a brief notice by the editor, the lamented Samuel Wagner, who, like the great Dzierzon, seemed not to comprehend the evolution of the reproduction of insects.

During the period of 1859-63, Mr. Kirby was in failing health, and when in the summer of 1863, he was about to bid adieu to his long-cherished theme and go from the altar of home on earth to a heavenly inheritance, he besought me to further his designs and he committed to my charge his new theory of the reproduction of drones and female bees. The result of the case thus consigned to me is as follows, conclusions that I have come to derived from careful observations for many seasons, viz., *videlicet*.

To produce drones the workers fecundate the worker lavæ in royal cells with drone's semen, which gives the elements of queens. The workers supply the said larva with animal secretion, water, bee-bread and honey, until it secretes sufficient material for a queen, and when the larva arrives at maturity it is then metamorphosed to an egg substance, from thence it passes to a chrysalis state, and in the pupa state her ovary is formed and impregnated with semen retained in the larva state imparting the elements of life. She then leaves her cell and is prepared to lay eggs that produce drones only, without further fecundation, and when the drones are matured from their natural genital propensities deposit their semen in the queen's spermatheca to enable her to fecundate her full grown eggs to produce workers, and also deposit semen where the workers can obtain it in the abscence of the drones, to perfect queens, and for storing it in their combs, where it retains its vitality at least from the time that the drones are expelled until they are reproduced the following season. It is ascertained that the drones and queens can be hybridized by their drone progenitors in the embryo state, which is conclusive evidence of their being fecundated with drones' semen.

To produce workers the drones deposit their sperm in the queen's spermatheca while on the wing (and on top, clasping the drone's back to herself) and from thence she fecundates full grown eggs, as they pass the mouth of her spermatheca on the way out of her oviduct, and by the combining of the elements of the drone and worker in one, by which the worker is produced. Thus, there can be no logical reasoning in saying that the workers are produced by semen, and the drones and queens are produced without semen.

To produce queens the worker fecundates the worker larvæ in royal cells with drone's semen which gives the elements of the drone, worker and queen, combined in one, in the larval state; it secretes in its growth the proper material for perfect queens, and when the larva arrives at maturity it is transformed to an egg-form, and then to a chrysalis, and in that state her embryo ovary is formed and impregnates in the upper points or sacks of her ovary, and contains the elements of myriads of drone egg germs before leaving her cell, and her physiology is changed in her transition from the chrysalis state to a perfect queen, and is qualified before leaving her cell to lay eggs that will produce drones only. To be fully qualified to produce workers she must receive a deposit of semen from the drone in her spermatheca. If once filled with semen it is efficacious through life, and qualifies her to fecundate the full grown drone eggs as they pass the mouth of her spermatheca, and causes them to produce workers, and to lay all the eggs, both male and female and workers, that the colony may require. It is ascertained that the embryo drone, workers and queen can each be hybridized in the ovary, egg or larva state, which is communicated to the whole production. I think the evidence conclusive in the reproduction of the queen. The fertile workers are produced by the workers taking the drone's semen into their stomachs, and from thence it is transmitted to their embryo ovary, and fecundates it, which gives the elements of life to the progeny, and qualifies them to lay eggs which produce drones only, unless the eggs are further fecundated by being brought into contact with semen. It appears that the young queen's ovary on leaving her cell, and the ovary of the fertile worker when fecundated, are identical in the production of drone eggs. Thefore, the evidence is that semen is the agent in both cases.

I wish to call attention particularly to the following points: 1st. The embryo ovary of young queens must be fructified before she leaves her cell with drone's semen, which gives the elements of life to her drone progeny, and forms the basis for the whole progeny of bees. To produce the 3 sexes of bees there are 3 distinct fecundations. 1st. The embryo ovary of the pupa queen to produce the drones. 2d. The full grown egg to produce the workers. 3d. The worker larva is fecundated by the workers with semen, given off by the drones to produce the queens. And all in the larval state the ysecrete sufficient material to perfect in their transition either drones, workers or queens, and they each can be hybridized in the embryo state.

2d. In the reproduction of bees there are 2 distinct egg forms: 1st. The eggs that produce the larva. 2d. The larva when it arrives at maturity is transformed to an egg substance, of which it forms the chrysalis that produces the perfect bees and their sexes.

3d. It requires 3 states of existence to perfect the organism of bees. 1st. The larva. 2d. The chrysalis. 3d. The perfect bee. The queen first deposits her eggs in the proper cells or utricals in which the larva is hatched and supplied by the workers with animal secretion and food until their transition to an egg substance or chrysalis.

I will propose the following question for consideration: What is it that is found in the royal jelly that is possessed of such impregnating powers as to cause the ovaries of the workers to produce drone eggs?

Richford, N. Y., March 14, 1881.

For the American Bee Journal.

Putting Wires into Comb Foundation.

J. G. WHITTEN.

Mr. John F. Cowan, in his article on "The Practical use of Foundation," published in the Bee Journal of March 9, says: "It has been practically demonstrated to my satisfaction that these results can only be obtained by Mr. Given's method of introducing the wires, and if by a happy combination the Dunham foundation could be made and wired by the Given or a similar process, the foundation controversy would be virtually ended."

I would like to say to Mr. Cowan and others who may be interested, that last season I hived about 40 full sized natural colonies, on Dunham foundation, in Quinby frames, prepared in the following manner: The frame is wired by sewing in 2 horizontal wires, spaced off so that there will be 3 equal spaces from the top bar down. I use a triangular top-bar and fasten the foundation by pressing it down to the bar with the thumb and then running a stream of melted wax and rosin over it. Then by running a wheel, made of a cent, over the wire I imbed the wire into the foundation; this also forms a groove in the foundation in which I run a stream of melted wax which covers the wire, and when drawn out will be perfect and will neither sag nor break out by extracting. There should be a good half inch of space btween the foundation and bottom bar, as it will settle enough to bulge the comb if left full length. To give it a thorough trial I hived 2 heavy natural colonies in one hive with the mercury at 90 in the shade and basswood honey coming in very fast, and when drawn out every comb was perfect. By bending a spoon so that it will pour a small stream and with a little practice, you will find it a short task to fasten the foundation in the frames.

Genoa, N. Y., March 14, 1881.

For the American Bee Journal.

Importing Bees from Italy.

CHAS. DADANT.

Mr. A. Salisbury, under the above heading, says that "It is no longer a question: the Italian bee of Italy is not a distinct race.....Later investigation proves the fact that there are black bees in Italy, as anywhere else, even in the vicinity of Rome itself."

Mr. Jones, at the Convention in Cincinnati last fall, asserted that he had seen black bees at several places in Italy, even in the vicinity of Rome. All my inquiries, as well as the reports of prominent and disinterested bee-keepers of Italy, such as Mr. Mona and Dr. Dubini, prove that there are no hybrid bees in Italy, and, of course, no black bees.

Will Mr. Jones tell us in which apiaries he saw black bees? Of course, by black bees we understand entire colonies of black bees. Then, he saw also colonies of hybrid bees, for the mixing could not be prevented. But if Mr. Jones saw only a few black, or *seemingly black* bees, in a colony, this circumstance, caused either by the dark contents of their stomachs, or by some other accidental cause, we cannot infer from it that there are black or impure bees in Italy. I hope that Mr. Jones will answer this question.

Mr. Jones adds that, in his opinion, the Italian bees were descended from the bees of Holy Land, or those on the Island of Cyprus. Such an opinion raises the question: Are the yellow bees from Cyprus, from Syria, or from Italy, the original bees; or the black bees, of more northern climates, the original bees, the yellow color being only an improvement?

According to the law of natural selection, the yellow bees of these three countries are about similar, because the three countries enjoy a mild climate. The idea of Mr. Jones' that the Italian bees descended from the bees of Cyprus or of Syria, cannot be sustained, for it leads to the idea of large importations of bees from these countries, into Italy, at a time when the means of transportation were few, long and difficult.

The introduction of a few colonies of these bees into Italy would have been unable to effect the smallest change in the race then existing; for by our introduction of Italian bees we have experienced how hard it is to overcome the returning to the type which is prevalent in a country. Besides, although we have had too little time to study the habits of the Cyprian bees, having received our queens last summer only, we have noticed that, while they resemble in color the Italian, their habits are not the same. For instance, the Cyprian bees do not cling to the combs as persistently as do the Italians, and resemble more the blacks in this respect; the Cyprian queens, like the common queens, are more easily frightened, and more difficult to find, than the Italian queens.

As to their other qualities we are unable to say anything. It will take a few seasons to test them thoroughly. It is, therefore, desirable to see them tested by a great number of bee-keepers in comparison with Italian bees.

I read in the Italian bee paper, *L'Apicoltore*, for January, just received, that the Central Society of Italian Bee-Keepers will have an exhibition on the first of May, to which the bee-keepers are invited to send bees from every part of the country (probably to answer the assertion of Mr. Jones, that there are black bees in Italy), in order to compare the varieties which can exist on the entire peninsula. The report of the commission of this society will thus put an end to the discussions between those who contend that there are black bees in Italy, and those who say that the Italian bees are all pure. Yet, it is well to remember here, that in Italy, as well as in Germany, they count but two yellow rings; for they do not count as a ring the first segment, to which the thorax is attached.

Hamilton, Ill., Feb. 5, 1881.

For the American Bee Journal.

Bees and Grapes.

REV. M. MAHIN, D. D.

I notice that the question whether bees destroy sound grapes is again being discussed. I have been a bee-keeper for 11 years and during most of that time have raised grapes enough for family use, and I have given considerable time and attention to the question under discussion. All my observations go to show that bees do not puncture sound grapes. I have seen them sucking the juice from grapes that had been broken by birds, and have picked off the broken grape, and watched the result. The bees would run about over the bunch hunting for an opening, and finally abandon the search. Last season a great many grapes were destroyed or injured in this part of the country, and I gave the matter special attention. Many of the grapes cracked more or less from the effects of rains following dry weather, and many more were broken more or less by birds. As forage was scarce the bees worked industriously on these broken grapes until they were all gone. But on all the bunches there were some grapes that were not broken, and these remained on the vines until late in the season. After the juice had been sucked from all the broken skins I saw the bees for many days vainly searching for openings from which they might obtain the supplies they had been accustomed to draw from the broken fruit. These sound grapes remained on the vines, in some cases, for weeks after the bees had ceased to get anything from the broken ones. Now it is plain that the juice of these very ripe grapes would have been quite as acceptable to them as that from the ones they are accused of having punctured and destroyed. And to my mind it is clear that if they had punctured and destroyed as many as they are accused of doing, they would not have become suddenly reformed as the grapes became sweeter and more delicious. I will not affirm that the bees cannot puncture the skin of a grape, but I do affirm that as far as my very careful observation enables me to judge, they do not. And if I am correct in this the injury done to the grapes is very small. The injured grapes would spoil in a few days if the bees were not to touch them.

As far as I have been able to observe wasps, hornets, &c., do little injury to grapes. The mischief results mostly from the cracking of the skin, by a very few days, even, of wet weather after it has been dry for some time. The skin of the grapes becomes so full that a jar from the wind or from the alighting of a bird on the bunch, will cause them to crack, and then, if there is a dearth of honey, they are sure to be sucked dry by the bees, with more or less help from yellow jackets, hornets, and wasps. It is possible that in some cases the skins are cut by wasps, &c., but I think the cases are exceptional.

Huntington, Ind., March 4, 1881.

For the American Bee Journal.

The Use of Separators for Box Honey.

GREINER BROTHERS.

In starting an apiary it is of great importance to adopt a hive that will prove satisfactory to the manager, in all its features, for the present as well as for the future. It is not an easy matter after an apiary has been started and hives and appliances have accumulated, to change the sizes or dimensions of such, if they should not be satisfactory. In the different manifestations of the hive we find that it is necessary to have brood frames and sections interchangeable, in fact, it is still more convenient to have all the different parts of the hives as uniform as mechanical workmanship can produce them, so that frames, honey-boards, division-boards, covers, sections, mats, &c., may be picked up anywhere and adjusted to any hive desired.

The use of separators is another feature of this kind; if once adopted and the bees arranged accordingly, it may cause considerable trouble to remodel a lot of appliances, especially if separators of any perceptible thickness are used.

In the Bee Journal for Feb. 2, Mr. Heddon gives some very good hints on "hive and section making," but we can not endorse all his points, and in this article we refer in particular to his closing sentence.

It seems strange to us that Mr. Heddon pronounces separators "nuisances," whilst other prominent bee-keepers, and we believe the majority, use them and advocate their use. It must certainly be a query to young beginners, who seek information amongst the contributors of the Journal, to encounter such square contradictions. Our experience is about as follows:

The 2 first years of our experience in bee-keeping found us equipped with open surplus cases, we mean by surplus cases the adjustible half-story, with the proper number of frames containing sections. The seasons were good and the crops abundant, but the shape of a good share of our honey was anything but desirable; it was not uniform in thickness nor even; some being thick on one end and thin on the other, some were missed entirely, whilst the adjoining one bulged out to take up the space; in short, the variations were many.

To glass and crate this honey for market cost us considerable trouble and we concluded to try separators. The 25 cases we had prepared and used the next season at our honey apiary proved to be a success; the honey was "just splendid;" the sections in shape, thickness and weight were as near perfect as could be desired, and we decided at once to produce honey in no other way. However, we were not entirely satisfied; we knew separators were objected to by some bee-keepers on account of a smaller yield. Mr. Heddon says, on page 33 of the Journal, "These separators cost me too great a portion of my surplus crop."

To satisfy ourselves on this point we used the following season about 100 cases, rigged as the first 25, with separators, which we scattered in our different apiaries side by side with open ones. The result was that we noticed very little difference, if any, in the amount of honey stored, and the editor's opinion, on page 59, was exactly our experience.

Again, Mr. Heddon claims the first cost and trouble of manipulating to be objectionable. We admit separators are an expense, but they need not be very costly. We use basswood, costing us less than a cent each, and even at twice that cost, would it not be economy then to expend a comparative small amount if we can thereby produce honey in much more attractive shape? Besides we claim separators lessen the trouble of manipulating instead of increasing it. The reason we use wood is because it is cheaper than metal and we believe better adapted, on account of its being the most natural material for bee-habitations.

Since we introduced separators the percentage of unfinished honey is greatly reduced. At the end of the honey season we formerly found open cases almost filled with comb and honey and not one single finished section among them. This is not so much the case since we use separators; when the flow of honey begins to diminish, we have noticed our bees to be at work in a portion of the sections, whilst the remainder would not be occupied at all; we have also taken off cases at the end of a honey flow, which were entirely empty, except 2 or 3 sections, and these were finished and marketable. To be sure these are extremes, but it shows the benefit of separators.

It might appear from the last part of this article, that we apply surplus cases regardless of the working capacity of our colonies. Circumstances may sometimes compel us to do so, but we aim to give our bees no more surplus room than they can occupy.

Naples, N. Y., March 6, 1881.

For the American Bee Journal.

Texas for Bees and Honey.

DR. J. E. LAY.

I write to answer several communications in regard to the adaptability of our great State to bee-keeping, and as apiculture is engrossing the minds of many of the most energetic, progressive and scientific men of our land, I recognize the difficulty of even venturing an opinion. As our great State is so varied in climate and flora, I will state that my remarks have reference to my own section of perhaps a radius of 100 miles. I have lived in Texas since 1850. I passed my boyhood days on her beautiful prairies, amid her thousands of flowers of every hue, freighting our incomparable sea breeze with more than Arcadian sweetness, silence banished from her woodland slopes by the joyous carol of beautiful song birds. Ever delighting in the marvelous beauties of nature, how could I fail to love so beauteous a sun-lit home? Yes, and as a grown up boy I love it still. Greek nor Roman, not even Wm. Tell, loved his country better than I, therefore my bee-keeping friends will pardon me if I seem to color a little too strongly. Our State is being filled with energetic farmers who are reaping rich harvests from the virgin soil, for nearly all kinds of seeds that are sown spring forth under the genial rays of the sun to 60 and an hundred fold.

Reasoning by analogy I opine that bee-keeping will result in like manner. Apiculture is in its nascent form here, but the sun of science begins to warm its quickening form. I have studied the best works on apiculture, but have not given it a thorough practical test yet; I purpose doing so this season. There are but few bees in our country, all blacks except my little apiary of 7 colonies, which consists of hybrids and blacks. I intend to Italianize in March, for they indeed possess many advantages over the blacks.

I have just wintered successfully in simplicity hives (plain) without any sort of protection whatever, and this is the coldest winter I ever saw in Texas. Dispatches state that at this time almost the entire North is covered with snow. While my bees were in a quiver of excitement to-day, Feb. 4, bringing in rich loads of pollen and honey from turnips, mustards, &c., I could but delight in their rush of joy. How different is the climate over which our vast brotherhood reaches! Our honey plants reach nearly through the entire year, yielding as good nectar as ever tickled the palate of man. In fact the harvest for bees is almost endless, better, of course, some months. The market for honey has never been developed; a few old "gums" to "rob" for "big meeting" or for some extraordinary visitor is about all ever obtained. "Bees do no good here these days, the moth destroy them," say the "old settlers." The moth skulks away in the light of scientific bee-keeping and its depredations are *nil.*

To be successful all should study the science, read good books on the subject, learn by close practical observation, read the periodicals of our wide awake bee-men, among which there is none better than the AMERICAN BEE JOURNAL. Energy and perseverance alone will succeed even in the "sunlit clime" of Texas. Without these, all will just as surely retrograde.

Hallettsville, Texas.

For the American Bee Journal.

Alsike Clover as a Honey Plant.

L. JAMES.

Much has been written for the JOURNAL about the value of this variety of clover for its yield of honey and hay. Such has not been my experience with it, sown on 19 acres of land, and extending over 11 years. In 1869 I bought some 38 pounds of the seed of Mr. Thomas, of Canada. The cost to me, of the seed, duty and express charges, was $18. Having 9 acres of ground planted with apple trees that had been bearing for some time, and wishing to seed it down to grass I had the ground well prepared for the reception of the seed, and a good rain fell just after it was brushed in; it came up nicely, and as there was favorable rains all through the summer it grew finely. The following season it grew in length of stem and quantity of bloom far beyond my expectation, and when in its full bloom it was a beautiful sight, resembling an ocean of blossoms, and as I looked upon it, you may rely upon it my calculations of boxes of nice alsike clover honey loomed up in large proportions, but like many another calculation based upon what our bees are going to do, it was all in fancy and I was doomed to disappointment.

Day after day their flight was just in the opposite direction, with only here and there a bee to be seen on it. There was a body of timber ¾ of a mile distant in the direction they were flying with pastures well set in white clover between this timber and the apiary, and I supposed the white clover pastures was the source of honey supply. This state of things continued for some time, and seeing a bee-man pass by that lived in the timber I inquired how his bees were getting along. He replied they were doing finely as they ought to, for he had never seen heavier honey dews. That was the secret, and soon my boxes began to show evidence of the dark stuff being put into them, instead of alsike honey. Fortunately for me, before much of it was stored in the boxes, some heavy dashing rains washed it from the leaves and there was no more of the dew for them to gather. The alsike and white clover were in bloom for some time after this, but for some cause the bees paid but little attention to it, and I was vexed to see the promise of a rich return for my expenditure frustrated. I took it for granted that the season was not congenial for its production of honey, as I knew the same to be the case with white clover, as it was last summer. After this at different times I sowed 2 other orchards of 5 acres each with alsike, neither of which did as well as the first piece sown, want of timely rains, &c., being the cause, but by continuous sowing I succeeded in having them tolerably well set with it.

Receiving no perceptible benefit from it, commensurate with its trouble and expense, I have for some time been satisfied that in central Illinois where our white clover is so abundantly furnished in our pastures and road sides, without any expense, and hardy at that, it is time and money put to a poor use.

As a hay producing plant it amounts to but little after the first season, as it becomes dwarfed in habit, and, I believe, will eventually be but little larger in growth under like circumstances than the white variety. The white clover is the honey plant for our latitude, and I presume the alsike for Sweden, from whence it came, and corresponding latitudes. After having had 11 years' experience with it I think it unworthy of attention from bee-men, either for honey or hay; at least where the hardy white clover comes spontaneously to our hands.

There is one thing I ought not to omit, in sowing this Canadian seed I introduced a kind of cockle (different from any I have seen in Penn. or Ohio) that holds its own much better than the clover, and I begin to think it will be a standing pest difficult to get rid of.

Atlanta, Ill.

Read before the N. E. Convention.

The Supply and Queen Trade.

A. B. WEED.

This is a subject, I believe, of interest to all who are engaged in apiculture, either as bee-keepers, supply dealers or queen breeders, and is growing as the business extends.

The supply business seems as yet to be in a crude state, and prices lack uniformity. In many cases we find needless "cutting" of prices. It may be said that this is a good thing for buyers; but I believe that the opposite is the case, for the inevitable result of unreasonably low prices is inferior goods. When prices are so lowered that there is no margin left for profit, the trade will not be supported with the enterprise which is necessary to stimulate improvements or inventions, or even to put the business on a good footing. The character of the business can best be maintained if the energy of manufacturers is directed to the perfecting of goods rather than the cheapening of them. Good tools are necessary in any pursuit, and seem to be associated with a thrifty business; in fact, the prosperity of a business is largely dependent upon the means at hand of carrying it on. If one tool is better than anohter—even if the difference is slight—it is worth very much more, for the benefit of the difference is felt every time that it is used. A good thing may be a source of profit, and a poor one of loss. The best is *always* the cheapest.

There is one respect in which the business is in a better condition than many others, and that is, that there is but very little credit given. This is an advantage to both parties, for the seller loses nothing through bad debts, and the prompt buyer does not have to pay for the losses caused by the careless or dishonest ones.

It is quite common among supply dealers to guarantee safe arrival of goods. This condition of sale is unnecessary, as the express receipt is sufficient, and in case of injury or loss the fact is more readily proven and damages more easily collected than could be from some dealers. It is unreasonable to expect the dealer to be responsible for goods after they have left his hands, especially when the consignee can adjust any difficulty more easily at his end of the line; this is the customary rule in business. When articles are sent by mail the buyer can protect himself against loss by having the article registered; but the precaution is almost unnecessary, as it is *very rarely* that anything is lost in the mails. Of course the sender is required to use necessary care in packing; with most shippers this is a point of pride.

The traffic in queens seems to be closely allied to the supply business—at least so I have found it—for as the bee-keeper begins to feel the need of good tools he sees the advantage of good stock as well; and he naturally looks in the same direction for both. I believe that I express the opinion of the best queen breeders when I say that it is much more satisfactory to sell a good queen at a correspondingly good price—even if the profit is no greater in proportion—than a cheap and poor one, for the reason that a queen, wherever she goes, will represent the stock from which she came. And I believe, too, that I speak the opinion of all observing apiarists when I say that it pays infinitely better to keep good queens than poor ones. Thus it is that good queens at good prices are more profitable to both parties. Some of the best apiarists have discontinued selling any queens that are not possessed of a high degree of merit, and send out only those which are thoroughly tested and found to be good. In return they receive a suitable price from appreciative customers. This is notably the case in localities where honey raising is an established business, and the value of good stock is therefore understood. It is now almost universally held by apiarists that if good queens are to be obtained they must be raised under favorable conditions. It is freely admitted that to bring about these conditions requires a large outlay of time and thought, as well as money. This especially is the case when queens are to be reared out of season.

The cost of rearing queens will decide their price, for of course they will not be sold at prices which do not pay for rearing and a reasonable profit besides. If buyers insist on having cheap queens, they will get them, but their value will be found to correspond with their price. The one-price rule, which is applied to queens throughout the country, has the effect of causing many poor ones to be sold at fair prices, which really should be killed. It has the tendency to discourage the rearing of very superior ones, for as a rule, a thing is no better than its price. When they are all sold at a uniform price it is to be expected they will be nearly alike in merit, as there is no special inducement for the breeder to improve his stock. The uniformity of price probably originated in the supposition that all queens are equally good, whereas experience proves the opposite to be true. A queen that lays even a few more eggs daily than another is much more valuable, for the extra number of eggs will be multiplied by the number of days that she is kept. This difference alone, so often repeated, will in time amount to more than the price of the queen. A poor queen is kept at a corresponding loss, although both may have sold at the same price. There are such things as plus and minus outside of algebra. The buying of queens at present has some resemblance to a lottery. They should be graded—at least so far as this is possible—and priced accordingly.

Combinations for the maintenance of artificial prices are impracticable and undesirable. I would only submit that prices be based upon cost of production and a *reasonable* profit.

Detroit, Mich.

For the American Bee Journal.

Who is to Blame for the Losses?

C. H. DIBBERN.

Already the reports of fearful losses are coming in thick and fast. Every severe winter the story is the same. Now the question arises, are these losses of bees inevitable every cold winter? If so then our business as bee-keepers is still a mere matter of luck.

During the last few years of mild winters the out-door wintering men have had things about their own way in our bee-papers. Now, are these papers not a little to blame for admitting articles to their columns giving bad advice to the inexperienced? Many have advocated the wintering on summer stands without protection or care, and persistently claim to be masters in bee-keeping. I am perfectly willing to admit that bees can be wintered very nicely on summer stands in a mild winter, also that they are wintered successfully if well packed in chaff in a cold winter; but I claim that the labor of preparing them is more than double that of cellar wintering.

I contend that the only certain way is to prepare a suitable place especially for the bees. If a cellar, have the floor cemented and see that it is dry, dark, and well ventilated. In such a place they will not consume more than half the amount of honey they would if left out "packed" in the most approved style. This being a fact they have no particular occasion for a flight. I know that the out-door men claim that cellar-wintered bees do not breed early and are liable to "spring dwindle." I hardly know what spring dwindling is. By good spring management I have never failed to have my hives crowded as soon as there is anything for the bees to do. Then what is to be gained by having the queen expend her energies and raising vast broods of bees in February to be ready to die when the blossoms come? But sometimes failure comes even in the best of cellars; but would they have fared any better out of doors? Nine times in 10 the cause can be traced to bees filling their hives from the refuse of cider mills. How to keep them from storing such stuff is one of the great problems to be solved.

It is not to be supposed that any kind of a hole under a house will do to winter bees. I have known bees to be packed away among onions, cabbage, and sour kraut. In the spring they wonder what made their bees die. Perhaps they were fastened by wire cloth so that the light could be let in and the bees could not "get out you know." That such must fail is apparent.

I do not find fault with those who prefer to pack in chaff and winter out of doors; I cannot see, however, that it is the best way.

It will be the "survival of the fittest" this winter, sure. The box hive men and careless bee-keepers will go out of the business. It is the golden opportunity for the bee-keeper of the future. Soon the fields will be white with the harvest, but the laborers will be few. The bees will have less competition in the fields and the honey in the market.

Milan, Ill.

[Are the papers reprehensible for giving place to candid and respectful arguments, whether based upon tenable or doubtful theories, intended to advance and simplify a science of such magnitude as the bee-keeping interest? Differences of opinion (and honest ones, too,) exist in almost all leading pursuits, and frequently, although seemingly contradicting each other, lead to successful results; again, as has been frequently demonstrated during the past winter, practices embracing all the most approved theories, have alike proved disastrous. There are so many favorable contingencies to be provided, that theories are powerless to insure success. It is interesting, as well as mystifying, to glance through our correspondence from week to week, and note the different methods of preparing bees for winter, and the disasters attending all the different styles. Nor are the cellars exempt from heavy losses, even where success has been proverbial heretofore. The truth is, the winter has been an exceptional one, and loss or success with a single or a few individuals, will neither establish nor disprove theoretical assertions; nor will it justify the "I told you so" class, because successful, in arrogating to themselves all of human wisdom.—ED.]

☞ The North Western Wisconsin Bee-keepers Association will meet at Germania Hall, LaCrosse, Wis., on Tuesday, May 10, at 10 a. m. All interested in bee-keeping are requested to be present. L. H. PAMMEL, JR., *Sec.*

☞ The next meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held at H. W. Lee's, 2 miles n.w. of Pecatonica, Winnebago county, Ills., on the 17th of May, 1881. J. STEWART, *Sec.*

☞ On account of unfavorable weather the convention at Monroe Centre, Ill., met on Feb. 8, and there being but few present, adjourned to the same place on March 29, 1881.

A. RICE, *Pres.*

THE AMERICAN BEE JOURNAL

THOMAS C. NEWMAN.
EDITOR AND PROPRIETOR,

CHICAGO, ILL., MAR. 23, 1881.

Frank Benton in the Far East.

Mr. Jones sends us the annexed extract from a letter of Mr. Benton's, and the following appreciative compliment to the BEE JOURNAL, for which he will accept our thanks:

Herewith I send you extract from a private letter just received from Frank Benton, dated Pointe de Galle, Ceylon, Asia, Jan. 30, 1881. The AMERICAN BEE JOURNAL has a warm corner in my heart. Right glad am I that you have taken time by the forelock, and issued a weekly. I would not have you go back to a monthly for $25 a year, and you deserve the congratulations of every bee-keeper; that prosperity may crown your efforts is my wish. D. A. JONES.

FRIEND JONES:—* * * I shall start back with nothing but full colonies. I have seen two native races of bees here, and the comb of a third; one race is stingless, but worthless; the tiniest little fellows, three-sixteenths of an inch long. Another race is *Apis indica*. The third race I do not believe is valuable, since it is a very small bee—smaller than *Apis indica*. *Apis dorsata* is a wonderful bee, whether it can be domesticated or not. It builds in the open air, on branches, often making combs 6 feet long; and I have good authority for saying that 30 natives have each taken a load of honey from one tree. It was not until I reached Colombo that I could find out anything about *Apis dorsata*. I call it *Apis dorsata*, but do not know positively as that is its name, for no one can tell here, and I have not yet seen the bee, as it was too late when I learned where to find it, to go to that part of the Island and reach this French steamer. Everybody says, though, a large bee, from which large quantities of honey are obtained, exists in the interior of the Island. The natives all know it by the name *Bombera*. I start for Singapore by the French steamer "Yangste," on January 31st. FRANK BENTON.

Circulars and Price Lists.—We have received the following Circulars, Price Lists and Catalogues for 1881:

L. H. Pammel & Bros., LaCrosse, Wis.—Italian Queens and Bees—4 pages.

Champion Bee Hive Co., Newcomerstown, O.—Apiarian Supplies—12 pages.

Thomas J. Ward, St. Mary's Ind.—Fruit Trees and Poultry—16 pages.

T. Greiner, Naples, N. Y.—Vegetable and Flower Seeds—24 pages.

D. D. Palmer, New Boston, Ill.—Sweet Home Raspberry—4 pages.

Henry Alley, Wenham, Mass.—Queens and Apiarian Supplies—4 pages.

Wm. W. Cary & Son, Colerain, Mass.—Queens, Bees and Apiarian Supplies—8 pages.

G. W. Thompson, Stelton, N. J.—Bees, Hives and Apiarian Supplies—4 pages.

S. D. McLean & Son, Culleoka, Tenn.—Italian Bees and Queens—1 page.

A. LaMontague, Montreal, Can.—Italian Queens, Hives and Bee-Keepers' Supplies—3 pages.

Jas. J. H. Gregory, Marblehead, Mass.—Vegetable, Flower and Grain Seeds—60 pages.

T. M. Metcalf & Son, St. Paul, Minn.—Field, Garden and Flower Seeds—28 pages.

Nanz & Neuner, Louisville, Ky.—Plants, Seeds, Bulbs, etc.—80 pages.

Landreth's Rural Register and Almanac for 1881, Philadelphia, Pa.—Garden Seeds—70 pages.

Cole & Brother, Pella, Iowa.—Garden and Flower Seeds—44 pages.

J. T. Lovett, Little Silver, N. J.—Choice Small Fruit—40 pages.

Joseph Harris, Rochester, N. Y.—Field, Garden and Flower Seeds—44 pages.

James M. Thornburn & Co., 15 John Street, N. Y.—Seeds for Garden and Farm—96 pages.

L. B. Case's Botanical Index, Richmond, Ind.—A Quarterly Botanical Magazine—40 pages.

☞ The Emperor of Russia, while returning from a review on Sunday, March 12, was killed by a bomb thrown by a Nihilist. He was taken to the Palace and died in a few hours. The assassins have been arrested. His son succeeds him as Alexander III.

An Excellent Suggestion.

Prof. Cook has forwarded us for publication the annexed open letter, addressed to Dr. N. P. Allen, President of the North American Bee-Keepers' Society. The reasons adduced in support of the suggestion are well founded, and must strike all minds favorably. September and October are usually among the busiest months of the year to bee-keepers and farmers, who have their later crops to garner, their honey to take off and prepare for market, their fruit to gather and assort, and their live stock to be made comfortable for winter; while the date proposed by the Professor occurs just at that period when everybody can spare the time best, when traveling is the most enjoyable, and is quite late enough to enable an approximate estimate of what the harvest will be. It is competent for the Executive Committee (of which President Allen is chairman) to fix upon such time as will best subserve the interests of the Society. We trust they will give the matter an early and careful consideration. Following is the letter:

To Dr. N. P. Allen:

DEAR SIR: As the proposition which I am about to offer is of general interest to the bee-keepers of our country, I beg leave to present it through the AMERICAN BEE JOURNAL:

The American Association for the Advancement of Science convenes at Cincinnati, Ohio, on Wednesday, Aug. 17, 1881. This Association had at its last meeting, in Boston, August, 1880, more than 1,000 members present. Owing to its influence, and the large annual attendance, the local committee at the place where the meetings are to be held are able to procure greatly reduced rates on railroads leading to the place.

Now, I would suggest that the North American Bee-Keepers' Association, which is to be held so near Cincinnati, convene at Lexington on Wednesday and Thursday, August 24th and 25th.

1st. This would accommodate such persons as myself, who wish to attend both meetings, and could not afford time or means were they widely separated by time.

2d. A committee consisting of yourself, Mr. Muth, of Cincinnati, and Mr. Wm. Williamson, of Lexington (I would do what I could to aid), could act in conjunction with the local committee of the A. A. A. of S., and I believe could get the commutation railroad rates to extend to the National Bee-Keepers' Association.

3d. August is a quiet time with bee-keepers, and so far as I can see, nothing would be lost in making the date of our meeting earlier than the usual time.

4th. The fact of accommodating such as wish to attend both meetings, and the reduced railroad rates, could we secure them, would greatly increase the attendance at the Bee-Keepers' Association, and would richly compensate for some loss, if such there would be.

I only make this suggestion, hoping that you and others interested will give it such consideration as its merits deserve. A. J. COOK,
Vice Pres't of Nat. Association and
President of Michigan Association.

☞ At the Utica Convention, last month, Mr. L. C. Root was appointed a committee to endeavor to have the bill for the prevention of the adulteration of sugar, syrups, etc., then before the Legislature of New York, so amended as to include honey. We learn, with much pleasure, that Mr. Root has succeeded in having it include honey, and Mr. R. is quite sanguine that the bill so amended will become a law of the Empire State. If passed, we hope that the bee-keepers of New York will see to it that it will not be allowed to become a "dead letter" in the statute books of that State.

AMONG OUR EXCHANGES.

GLEANINGS.

Bees and Grapes.—The Klassen and Krock difficulty about the bees of the former committing depredations on the grapes of the latter, is to be submitted to arbitration. It seems that the real trouble was a "personal feud that does not concern bee-keepers at all"—the grape matter was an outgrowth. This matter was referred to in Prof. Cook's article on page 74 of the BEE JOURNAL, and should now be entirely divorced from the Bee and Grape controversy.

Bees Dead in box hives.—Mr. G. Castello, Saginaw, Mich., says that on Feb. 22 he went to a neighbor's, 5 miles distant, who had a box-hive apiary consisting of 103 colonies of bees. After looking them over, they found only 10 colonies alive; all the rest had died of dysentery.

Honey for sore Eyes.—Mr. S. C. Perry, Portland, Mich., says:

"A neighbor of mine had inflammation in his eyes. He tried many things of many physicians; 'was nothing better, but rather grew worse,' until he was almost entirely blind. His family was sick, and I presented him with a pail of honey. What they did not eat he put in his eyes, a drop or two in each eye, 2 or 3 times a day. In 3 months' time he was able to read coarse print, and now, after 4 months' use, his eyes are almost as good as ever. I have also found honey good for common cold-sore eyes."

MISCELLANEOUS.

Feeding in Winter.—Mr. A. B Weed, in the *Michigan Farmer*, says:

"Many colonies which were put up for winter with but a small amount of provision, have consumed what was given them, and starved for want of more. Others have but a small amount of stores left, and must be fed soon if they are to be saved. The best way to feed such is to give them frames of well ripened honey, but this the weather will not always permit. The next best thing for them is candy; this can be given at any time, and can be laid on top of the frames. If the cluster is low down in the hive, it should be put down into it, where it can be reached."

Bees and Grapes.—Mr. W. H. Stout, in the Lancaster, Pa., *Farmer*, gives the following as his experience:

By close investigation I have satisfied myself that bees do not destroy sound grapes. I had, during the past season, 22 colonies of Italian and common black bees; all the hives were in close proximity to the grapes, while a number had the vines trained over them for shade during the heat of summer. The grapes are of the Concord variety, of which I had an abundance of fine fruit, some clusters of which grew within 18 inches of the entrance to the hives. Bunches of the grapes remained on the vines until the frost had killed the foliage, which fell off and left the grapes exposed, affording every temptation to the bees; and this, too, through a season when the honey yield from natural sources was so small that the bees consumed stores they had gathered earlier in the season. But the bees do work on grapes, and also on other fruits under certain conditions. If the skin of grapes, peaches, pears, etc., is ruptured from any cause, the bees, wasps, ants, etc., are very quick in discovering it, and soon leave only the dried shells. During the hot weather of August, especially when there are frequent showers, the skin of ripening fruit cracks, for reasons which I will leave to some philosophical friend to explain. My conclusions are not hasty; nor were my observations superficial; but they were prolonged from the time the first grapes ripened until the close of the season. I found some clusters of grapes literally covered with bees scrambling and fighting for the little sweets contained in the cracked grapes, which are the only ones on which they work, as I found out by driving the bees away and removing from the clusters all the bursted grapes, when the bees, as soon as they found only sound fruit remained, went away and left the grapes uninjured. We also laid some bunches of grapes on top of the hives and others close to the entrances, also left clusters hanging on the vines close to the hives, where they remained uninjured by the bees as long as the fruit was sound. I know very well that bees can gnaw through heavy muslin, or shave off wood and straw. To cover the bees we have quilts made of heavy muslin, which they sometimes bite through, and we have wood and straw hives on which they have enlarged the entrances; but, nevertheless, I am fully satisfied they do no injury whatever to sound fruit.

Feeding Rye-Meal.—In the *Indiana Farmer* Mr. F. L. Dougherty says:

"Bees will not raise brood without pollen in some shape. We frequently find colonies with but very little, and at times none at all. In crowding them on a few frames, quite frequently those left in the hive contain but little, if any. So it becomes necessary to furnish it to them, until they can gather it from natural sources. Unbolted rye-meal is probably the best substitute, although they will use wheat-flour, corn-meal, oat-meal, or in lieu of any of these, will even carry saw-dust. To get the bees started, place a piece of comb on the meal, and if the weather be pleasant and no pollen to be had they will soon appropriate it. They will leave the meal when natural pollen makes its appearance."

☞ That excellent Monthly, published in Nyon, Switzerland, by Mons. E. Bertrand,—the "*Bulletin D'Apiculteur pour la Suisse*"—gives the Weekly BEE JOURNAL the following kind notice:

"We have received the first 2 numbers of the AMERICAN BEE JOURNAL, which has been transferred from a Monthly to a Weekly, by its Editor, Mr. T. G. Newman. Only one apiarian publication is issued every 2 weeks, the *Bienen-Zeitung* of Eickstadt. That of Mr. Newman's is, therefore, 'the only one in the entire world which is published weekly.' It is also, without doubt, the most universal. Its principal contributors are among the most distinguished bee-keepers of America, together with scientists, entomologists, chemists and farmers; and the number of those who send it communications can be called legion. It is, with an understanding of the full extent of the services which it renders, through the abundance of the observations and of the information which it brings before its readers, that we offer to our colleague and friend our warmest felicitations on the occasion of the new development of his publication."

This very kind notice is the more valuable as Mons. E. Bertrand is a man of intelligence and wealth, whose sole interest is his love of the pursuit of bee-keeping.

☞ *L'Apicoltore*, the organ of the Central Societie d'Apicoltore d'Italia, also gives the BEE JOURNAL the following very kind notice, in its excellent number for February:

"The bee-papers are every day augmenting to suit the increasing need of the readers, and the publisher of the AMERICAN BEE JOURNAL, Signor Newman, who came to Europe and to Milan last year, announces that at the beginning of 1881 his Monthly JOURNAL will be issued every week."

☞ In Mr. A. Hoke's letter, on page 77, he stated that the dead bees covered the ground for several yards. That was bad enough, but our compositor made it a hundred times worse by adding the word *hundred*. The reader will please discount that expression accordingly.

SELECTIONS FROM OUR LETTER BOX

But Few Bees Lost.—We have had a pretty hard winter for bees, although I have heard of but few losses in this section. My bees are packed in chaff, and are all alive but 2 colonies, which were very weak when packed. Success to the Bee Journal.

F. W. Burtnette.
Morrice, Mich., March 12, 1881.

An Old Queen.—We have had a couple of warm, bright days at last, and my bees are flying, what of them are alive. Out of 33 colonies, I think I have 10 or 12 alive, some of them pretty strong, others weak. I have 3 Italian colonies—they seem strongest. What hives I have looked into, where the bees are dead, appear to have plenty of honey, and the other bees appear to be taking the honey out, and I fear are taking from the weak colonies also. Should I prevent them from appropriating it? I noticed some drones with one of my Italian colonies; what does that mean at this time of year? I have been a short distance south, returning home 3 weeks ago. There has been great loss of bees in Fayette and Wayne counties, as well as in Wabash. Please answer above questions in the Bee Journal.

Joel Brewer.
Lincolnville, Ind., March 10, 1881.

[It is not advisable to let bees have access to combs in other hives; if they need honey, put the combs in the hives where wanted, and not too many. If the strong are robbing the weaker colonies. exchange stands with them. The presence of drones thus early indicates an old or defective queen. Unless there is a large quantity of sealed worker brood (indicating the queen is perfect), we would supersede her as soon as possible, unless the bees save the trouble. —Ed.]

Gathering Pollen.—My bees gathered pollen lively to-day, and are strong for this time of year. My loss in wintering is 4 colonies, leaving 8 to commence the season with. Nearly all the bees in this county are dead.

John C. Gilliland.
Bloomfield, Ind., March 15, 1881.

No Winter Flight Yet.—I am trying to winter 163 colonies in Mitchell hives. All are boxed and packed in chaff with 2 thicknesses of burlaps over the bees; the ends of the hives to the division boards are filled with chaff; combs contracted to such numbers as bees would cover. They were put into winter quarters Nov. 13, and have had no flight yet. I find many colonies affected with dysentery, and 12 are dead. It is snowing to-day with prospects of another blizzard. I cannot estimate the loss at present; will report at a future time. With many others, I am free to throw in my mite of joy for the weekly visitations of the Journal.

D. Videto.
North East, Pa., March 15, 1881.

Bees Confined 4½ Months.—This has been the severest winter that I can remember. My 27 colonies of bees have not had a flight since Nov. 1. They are in a cellar; one of my neighbors had over 50 colonies, but there are only 5 left. He tried to winter out of doors, but has put what he had left in a cider mill. Another had over 20 colonies, wintered out of doors and lost all. I have but little hopes of having over 6 or 8 colonies; there is but little hopes of having weather that bees can have a flight for 2 weeks yet. We are in a snow blockade yet. We have had but one mail in over 2 weeks. I like the Weekly better each number; it brings us nearer together and we can sympathize with our bee-keeping friends. Let us hope for the best; there are better times coming. Success to the Weekly.

E. Bump.
Waterloo, Wis., March 14, 1881.

Closed out by Fire.—I had the misfortune to be "closed out" of the bee-business by fire, on the night of March 4, losing all of my 36 colonies of Italians, one of which contained an imported queen. They were all in the cellar; I also lost all the implements necessary to carry on the business, my house and contents. This was "closing out" rather unexpectedly, but I hope not to remain out very long.

Wm. H. Travis.
Brandon, Mich., March 16, 1881.

Bees in Good Condition.—Though there is a great loss of bees hereabouts, mine are yet in good condition, and I hope they will come out right in the spring. The Weekly Bee Journal I value more and more all the time.

Thomas Lashbrook.
Waverly, Iowa, March 11, 1881.

Lost 8 out of 37 in Wintering.—I put 37 colonies into winter quarters, all in good condition except 4 or 5 small late swarms, and as it was a poor season for honey, they did not fill up; 29 were packed under a shed, open to the south and east. Before packing I removed the outside frames and put in cushions made by covering empty frames with sacking and filling with chaff; also 2 inches of the same on the top of the racks. My loss to date is 3. I prepared 5 in the same manner, but left them on the summer stands; lost 4. Two that I was sure would starve if not fed, I removed to a room over another where a fire is kept, placed them at a window and arranged a passage leading outside; then, with wire-cloth over the frames, I can feed and examine without their flying out. They are all right. One I left on the summer stand with a set of section boxes, unprotected, and it is very strong. On March 9th my bees had their first good flight since Oct. 25. I had one colony in a box hive; of course they are dead. Total loss to date, 8 out of 37. Nearly all are strong now. I am with the majority when I say that the Weekly Bee Journal is a decided improvement. Success to it.

Wm. Morhous.
Dearborn, Mich., March 14, 1881.

Sweet Clover.—Must the sweet clover be sowed over again, or does it sow itself? Please answer in the Weekly Bee Journal, which I could not do without. It is the best bee paper that is published. Lewis Siegman.
Newstadt, Ont., March 11, 1881.

[A good "stand" of sweet clover will sow itself, as there are generally some seeds that do not catch the soil the first season, but germinate the second. It is more satisfactory, however, to plant the second season about half the complement put in the first, after which it will bloom annually, and sow itself. —Ed.]

Had a Flight in January.—In the winter of 1879 I put 30 colonies into my cellar; but it was so warm that they were uneasy and I put them back on the summer stands. I lost 10 colonies; I now have 20 colonies, facing the south, sheltered by a board fence on the north and covered with about 18 inches of straw. About 10 days ago they had a nice flight, and I covered them up again. I think of building a house for them facing the south, and boarding up the other 3 sides; I will then cover the hives with about 2 feet of straw, which I can remove on a bright day and give them a flight. I intend to leave the straw on them until warm weather, and thus aid them to keep warm for brood rearing, &c. I wish the Bee Journal success. T. Rice.
Lenox, Ill., Feb. 4, 1881.

Nearly All Dead.—Bees are nearly all dead in this region. I had 33 colonies last fall and now have but 10; a neighbor had 40 and now has none; another had 44 and now has 2; another had 75, and 3 weeks ago they were reduced to 20. Several have lost all but 1 or 2, and some have lost all.

Wm. S. Buchanan.
Hartford, Ind., March 14, 1881.

Bokhara Clover.—Please answer the following questions in the Journal:

1. When is the best time to sow Bokhara clover?
2. Should it be sown alone or with a grain crop, or with other kinds of clover?
3. Should it be cut for hay, pastured, or kept for bees only?
4. Which is the best kind of hive for comb honey—a one-story with racks to hold sections, or a two-story, with section boxes put in cases in the upper story? John H. Heard.

Flesherton, Ont.

[1. Early in spring is as good a time as any for planting Bokhara, melilot or sweet clover—we fail to discover any difference in them.

2. For bees alone, sow it alone.

3. If desired for cattle or sheep, sow it with timothy, letting them graze it, as it blooms but little the first season; afterward keep them off.

4. One-story with rack is more easily manipulated.—Ed.]

An Enthusiast.—My apiary is located on a hill-side sloping to the west, and hives fronting south. The Macoupin creek is ½ mile south of it, and several sloughs within a mile, with plenty of soft and hard maple. willows and cottonwood. I packed rags around and on top of my 13 hives, on their summer stands, on the 25th of October. The bees were in good condition. Only one colony gave any surplus; from that I took 40 lbs., and left them 35. I examine my bees every week and clean out the dead ones. They had a good flight on the 13th of December, and again on Feb. 22d, when every colony had brood in all stages, and No. 2 was crowded full of young bees, and had a queen cell just ready to put the egg in, which I took off. Feb. 26th was a warm day, and No. 2 sent out a swarm; it was queenless, however, so I sprinkled them with peppermint water and united them with No. 12, which was weak. I do not keep bees for profit in dollars and cents, but for pleasure, as I do love them. I am a merchant, and own 275 acres of land, but being an invalid, look to my bees for recreation. In a radius of 4 miles from my apiary, on Nov. 1st, there were 13 bee-owners, with a total of 73 colonies. On the 1st inst. there were 19 colonies left, and they were in bad condition. I am the only one taking the Bee Journal here—success to it.

R. M. Osborn.
Kane, Ill., March 4, 1881.

Bees All Dead.—I now send you my report for the winter of 1880-81, which will long be remembered by the bee-keepers in this locality. I commenced the winter with 9 colonies of bees, all carefully packed in chaff on the summer stands with plenty of nice sealed honey. They were packed on the 13th day of last Nov., and from that until the present time (121 days) there has not been a single day that the bees could safely fly, and the consequence is my bees are all dead, from the effects of their long confinement. They left plenty of honey, but the combs are badly soiled. I am not discouraged, however, and shall try again. A gentleman living not far from here had only 8 colonies left out of 39, 2 weeks ago, and when spring condescends to smile on us again we think it will not need a returning board to count the bees in this county. I am well pleased with the new Weekly; it is always a welcome visitor. J. R. Kilburn.
Fisher Station, Mich., March 14, 1881.

Bees Robbing.—Here in Texas we have had a severe winter, but not much snow. The thermometer went down to 20° above zero. Last season was a poor one for honey; we had a cold spell in Nov.; then had warm weather for 2 weeks, and my hybrid bees began to rob. The pure Italians behaved well, neither robbed nor let the others rob them. I used water and kerosene oil, but it was of no use; at last I hit upon a remedy. My hives have the bottom boards projecting in front. I ripped out one-inch square pieces 5 inches long, cut coarse wire cloth 2x6, bent it lengthwise in the middle, tacked on 2 sides of each block, leaving wire about 5 inches to give them air; I drove a nail through each end and nailed it in front of each hive. Every 10 or 15 days when the weather was fine, an hour before night, I let them out to have a fly. We have had fine weather for the last 2 weeks. I let the bees out on Jan 30; they have been busy carrying in pollen from elm since Jan. 31, and have forgotten their stealing propensities. I opened some hives this evening and found plenty of sealed brood, and will have drones flying by Feb. 24.

J. W. Eckman.
Richmond, Texas, Feb. 10, 1881.

Chloroform.—About 10 years ago I used chloroform in handling bees, after the following plan: I provided myself with a tin slide about 5 inches long and 2 wide; punched a few holes in it, and stitched on one side of it a pad of 3 or 4 thicknesses of cotton cloth. Then after closing all ventilators and entrances except the lower one, I turned about one teaspoonful of chloroform on the pad and slipped it through the entrance, and immediately closed the hive with a wad of cloth, I then listened carefully until the bees had nearly ceased humming (or about 1 or 2 minutes) and then opened the hive and withdrew the slide. They were cross hybrid Italians. P. F. Whitcomb.
Lancaster. Wis., March 5, 1881.

Test for Honey.—Bee-keepers need a good honey test, to expose the "rag syrup," an admixture of honey and glucose, with which the New York market is flooded. In every grocery, meat market and drug store there, can be found cans of "Walker's best honey," labeled "Greenpoint, N. Y.," but there is not much honey in it. Last fall I went into a drug store there with 4 samples of my best honey. They tested it, and what they used turned it perfectly black. I saw one of Walker's cans of honey there, and asked them to test that; they did so, but the same drugs had no effect whatever on that. They would not tell me what they used to test it; but I would like to have a good and simple test given in the Bee Journal.

Sing Sing, N. Y. H. Richey.

[Pure green tea, well steeped, is used by many to detect the presence of glucose in honey. If the honey dissolves without changing the color of the tea, it is supposed to be pure. But in these days of "enterprise," it is frequently a matter of doubt whether the tea is pure; again, if, as is claimed, glucose is sometimes manufactured without leaving sulphuric acid or other deleterious substances in it, then the tea would hardly expose it when mixed with honey. Alcohol is also used to detect the presence of glucose; but besides being frequently inconvenient to obtain, it requires considerable skill in its use.

Thousands of bee-keepers will unite with us in thanking Prof. Kedzie, of the Michigan Agricultural College, for a simple test to detect adulterations in honey and syrups, and instructions for its application.—Ed.]

Three Fourths of the Bees Dead.—The present severe winter has killed ¾ of the bees in this section. Bees have not had a thorough cleansing flight since Nov. 8. One apiary of 61 colonies, well packed in chaff and plenty of good stores, will not go through with over 50 per cent. Mine have been confined in the cellar for 118 days, have wintered well so far, but are becoming uneasy.

M. A. Gill.
Viola, Wis., March 13, 1881.

Mortality of Bees in House and Cellar.—I put 60 colonies of bees in a house and cellar last Nov.; 12 of them are dead and I have taken out one-and-a half bushels of dead bees. Nearly all have the dysentery. I cannot do without the Weekly. I wish it much success. Milo Munger.
Harvard, Ill., Mar. 14, 1881.

Bees Doing Well.—My bees had a nice flight on the 9th, 10th and 11th of this month and are now doing well. It is cold again to-day.

J. R. WAGGONER.
Grantville, Kan,, March 12, 1881.

Dwindling in the Cellar.—I put 53 colonies in the cellar, in good condition, which are all alive but one; but there are a great many dead bees on the bottom of the cellar—more than I ever knew before. I gather them up and carry them away occasionally, to prevent their tainting the air. Will the loss of so many weaken the colonies, and what is the cause of it? My bees have not seen the light this winter, yet they seem all right excepting the loss of so many on the cellar bottom.

WM. F. STANDISH.
Evansville, Wis., March 9, 1881.

[If the colonies were very strong, the loss may not be appreciable. The cause may be attributed to age of the bees when put away, and subsequent long confinement; or the cellar may have been too warm at times, and the bees become uneasy.—ED.]

Contradictory Experience.—The poor bees have suffered dreadfully in this locality, and the circumstances and conditions under which some have perished and others survived the past trying season, are so varied that I am quite at a loss what to think about bee preservation during the winter season. I had 12 colonies last fall; I packed 6 with chaff 6 inches thick around them, and have 1 colony left of the lot. There is honey in the combs, but the bees are all dead. I put 3 colonies in the cellar; 2 of them are alive, but in a bad condition, the combs being dirty and moldy. I left 3 on the summer stands, and 1 is yet alive. None died for want of honey; there was plenty of food for them in the hives. The 6 were put into the chaff in the latter part of November, and taken out on the 8th of March. The combs look clean and free from mold. About a week before I took them out of the chaff I had taken off the front boards, and finding the bees alive, shut them up again. Upon taking them out this was the only colony that was alive. When I took the chaff off, the bees were crowded around the entrance ready to fly, which they did at once, and had a lively time until they were driven inside by the approach of night. Do you think the other 5 colonies were dead the first time I looked at them. They had a passage through the chaff 1 inch high by 4 wide. A friend of mine here had 4 colonies wintered outside, with an old piece of sail-cloth over them, and only lost one, while old bee-keepers, with between 50 and 100 colonies, have lost one-half, and others have lost all.

F. A. HUTT.
South Bend, Ont., March 11, 1881.

[Your question is a stunner; we have no data on which to base an intelligent opinion.—ED.]

Wintered Without Loss.—My 27 colonies came through the winter without the loss of a single one, for which I can thank 4 or 5 colonies of Italians, for without them I should not have had honey enough to have kept them through, even a moderate winter, to say nothing of such a stinger as we have had. I have withheld my opinion in regard to the change in the JOURNAL from a monthly to a weekly till I had tried it a couple of months, and will now say that it would be a great disappointment if you were to go back to a monthly. I am glad that you have so often devoted your first page in each number to the subject of bee-pasturage, for that is, or should be, our leading study now, till we are on surer ground. The best way to make bee-keeping popular is to make it pay; and it will pay if we can get the pasturage every year. I would rather have a tip-top honey plant than an Apis dorsata, if it had a tongue long enough to lick the molasses out of the bottom of a 5 gallon keg. We shall have plenty of white clover this year.

WM. CAMM.
Murrayville, Ill., March 12, 1881.

Bees Uneasy in the Cellar.—This has been a very hard winter for bees in this section of the country. Nearly all the bees are dead that were left on the summer stands. I have 40 colonies in the cellar, all alive but restless. They need a cleansing flight very much. The Weekly BEE JOURNAL pleases me very much.

CHAS. H. DOW.
Freedom, N. Y., March 12, 1881.

Bees Much Better Than Expected.—My bees are much better than I had any reason to expect. I left them on their summer stands, and did not even take the tops off, but I have them all off now. I had about 80 and now have 70 colonies in good shape. I find I must either attend to my bees or quit the business, and have made arrangements with a friend who has about the same quantity, who will take charge. We shall call it the "Gipsy Apiary," and our motto will be, "if the honey will not come to us we will go to the honey." Mr. Heddon thinks it wont pay to move for honey, and he is pretty good authority, but we will try. Keep us posted through the JOURNAL where is the best place to sell honey. Keep the ball rolling in the suppression of adulterated honey, as well as other adulterations.

I. H. SHIMER.
Hillsboro, Ill., March 14, 1881.

Have Young Bees and Brood.—I put 15 colonies of bees into winter quarters and now have 13 in fair condition; some had young bees 2 weeks ago, and all of them have brood. The last 2 years have been very poor for bees; the last the worst, being followed by such a cold and long winter. About one half of the bees in this locality are dead.

G. M. GIVAN.
Moore's Hill, Ind., March 14, 1881.

Bees in the Cellar 135 Days.—I carried 22 colonies of bees out for a flight on March 8. This is the first suitable day for bees to fly there has been here since they were put in the cellar on the last of Oct. They came through the 4½ months' confinement very well, except 2 or 3 third-rate colonies that had more hive room than they could well keep warm through this cold winter, and now they seem to be somewhat reduced in numbers. The day was rather cold, snow did not soften in the shade but the sun shone brightly, "the winds were asleep," and the bees seemed to enjoy the fray, but left a good number of the slain on untrodden snow. They were returned to the cellar at night and will be supplied with water in their hives, hoping to secure the starting of a good cluster of brood before they are placed on their summer stands, about the 1st of May. I usually keep them in confinement without a flight for 5 or 6 months, with good results, but in 1879 brood rearing ceased about the 1st of Sept.; the hives were destitute of brood when carried out, April 18, and although the hives filled rapidly with brood, before it began to hatch nearly all the old bees were dead, giving me the most disastrous case of spring dwindling that I have known in an experience of 25 years. I hope to avoid such losses in the future.

A. WEBSTER.
E. Roxbury, Vt., March 10, 1881.

The Best Honey for Winter.—By this time I presume all the readers of the BEE JOURNAL know that the winter has been quite severe—about as destructive to the older people as to bees. Bella Lincoln, the oldest bee-keeper in this section of the country, died this winter; and since then nearly all of his 100 colonies of bees have also died. My 60 colonies are in the cellar with chaff over the frames; some are dead, and the entrances to others are soiled, indicating dysentery. Several which had sealed honey stored in the summer are all right. Some worked on a cider mill, but if they have good sealed honey I do not think it makes so much difference about the kind of winter. I like the Weekly BEE JOURNAL, because it "enthuses" me every time I read it. In any kind of business one needs some enthusiasm, at least once a week.

C. F. SMITH, JR.
Vandalia, Mich., March 12, 1881.

Carrying in Pollen.—My 5 colonies of bees wintered well on summer stands, in double-walled Langstroth hives. They are carrying in dark pollen to-day; I think they get it from the maple.

H. H. LITTELL.
Louisville, Ky., March 5, 1881.

Chaff-Packing of Bees Triumphant.—The winter has been a severe one everywhere. Since the 1st of Nov. until the first days of this month my bees had not had a flight. I live in a very high altitude, about the highest good land in the State. The winter begins early and lasts long. We have an abundance of snow now and it is blustering wildly today. I despaired of seeing my bees come out alive; they were covered solidly with snow for 3 months, only the tops of the hives being visible. At last the weather softened and I dug away the snow. The next day or 2 the sun came out warmly and my bees began to fly, and greatly to my happy disappointment they are all alive—all that I had out on the summer stands. One only was dull, which I examined and found enfeebled with dysentery, arising from the feed I gave them in the fall. All others were strong. Just 122 days had intervened between the flights. The sick colony has since died, but the others are in the best condition. This success is a tribute to the chaff-packed hive. Is there another record of 122 days' confinement and yet come out strong?

W. S. BLAISDELL.
Randolph, Vt., March 11, 1881.

Look out for the Robbers.—We have had a very hard winter on bees in this section of the country. Bees that were not properly packed for winter are nearly all dead, while those that were properly packed are nearly all in good condition. We are having good weather now and the bees are flying nicely. Those having weak colonies and hives of combs without bees will have to look out for robbers and keep their small colonies crowded upon as few combs as they can, keeping the entrance contracted, so that only 1 or 2 bees can enter at one time. Hives in which the bees have died should be closed tightly. The Weekly BEE JOURNAL is a welcome visitor. I could not think of doing without it.

J. A. OSBORNE.
Rantoul, Ill., March 17, 1881.

Two-thirds of the Bees have Died.—Over ⅔ of all the bees in this part of the State are now dead. I have met with a heavy loss, on account of a cider mill that was within 80 rods of my apiary last fall.

HIRAM ROOP.
Carson City, Mich., March 12, 1881.

Bees in Good Condition.—We put out on the summer stands on the 9th and 10th of March, 150 of our 200 colonies that we had in the cellars in good condition. These were the first days that bees could fly with safety since the first of Nov. We have 50 colonies more in one cellar, but as they seem to be doing well, we shall leave them in until it becomes settled weather. We left 9 colonies on their summer stands but the winter was so long and severe that we could not feed them and 3 of them starved. Now we are busy transferring, that is shaking the bees off the combs, cleaning them off and putting them into clean hives. If we find any not strong enough we double them up. We consider ourselves nearly masters of the wintering question, as our real losses for the last 10 years, we think, would not exceed 6 per cent.; in fact we did not lose a colony in winter or spring, until the number had reached about 100. The BEE JOURNAL is a welcome Weekly visitor.

T. S. BULL & SON.
Valparaiso, Ind., March 15, 1881.

Death Reigns among the Bees.—Having made some inquiry concerning the bees within a radius of about 2 miles, I find some bee-keepers, some who keep bees, and those that let the bees keep themselves. Mr. H. had 3 colonies, all are dead; Mr. L. had 7, one left; Mr. D. left his 11 colonies without protection and now has 11 empty hives for sale; Mr. B. let the winters' blast try his 20 colonies and now has 12 empty hives; Mr. F. packed 37 in chaff and has 11 left; Mr. A put up 57 in complete order, but with all his precaution all are dead; Mr. B. put into winter quarters 73 colonies of fine Italians, 58 of them are dead. I packed in clover-chaff 101 colonies, and 23 have gone the way of all the earth. My bees were confined in their hives from Oct. 20 until March 6. I packed 24 in Langstroth hives with space the whole width of hive left open, to give plenty of fresh air, yet at the same time warm, with a due amount of packing, and in this lot have not lost one colony, and very few bees; but the end is not yet. To-day I found young bees with brood in all stages.

G. W. NAFTZGER.
South Haven, Mich., March 17, 1881.

No Loss in Wintering.—Nearly all the bees in this vicinity that were left to care for themselves are extinct. I had 14 colonies packed comfortably in chaff before the cold weather commenced, and have not lost any yet. I am highly pleased with the Weekly BEE JOURNAL, and wish it great success.

J. P. MOORE.
Morgan, Ky., March 14, 1881.

Poor Season but Fair Profit.—After selling my surplus colonies, I commenced the season of 1880 with 37 colonies in fair condition; increased by division and natural swarming to 63, and 12 nuclei. I reared 30 Cyprian and Italian queens; had 100 Gallup frames of foundation drawn out, and extracted 400 lbs. of honey. Estimating the increase at $6 per colony, and deducting the expenses, my income for care and labor is $250, or about $6.50 for each colony in the spring. I put 75 colonies, in fair condition (including the 12 nuclei), into winter quarters Dec. 8; some were short of stores, and all had poor honey. On March 1st I found 8 colonies and 4 nuclei dead—4 starved and 8 died from the effect of poor honey and long confinement. More of them are diseased and must have a flight soon or die. With the loss of stock already mentioned, and allowing for more to follow, the credit will be cut down to $3.50 per colony. The season has been the poorest I ever knew, but even $3.50 is a fair profit on the investment. White clover gave no honey; basswood lasted only 10 days, but yielded well; had it lasted 2 weeks longer I should have had an average yield of honey for the season. Without this flow of basswood honey, the bees must have been fed, but now they have enough stores to carry them through till spring. As the heavy snows have no doubt preserved the clover, the outlook for honey this summer is good. I hardly need say that I am pleased with the Weekly BEE JOURNAL.

T. E. TURNER.
Sussex, Wis., March 1, 1881.

Planting Buckwheat for a Honey Yield.—In answer to Mr. A. Hodges, on page 78, I will say that buckwheat is a peculiar plant about yielding honey. I have never known it to fail here in yielding enough honey for the bees' winter stores, and usually very much more; in other localities in the same latitude, it cannot be relied on at all for a honey crop. It seems, however, that it never yields through the entire season in which it can be made to bloom. Quite a large amount of it is cultivated every season in my vicinity, much of it generally coming into full bloom as early as the middle of July, yet I have never known it to yield any honey earlier than the 1st of August, and very rarely before the 10th; but when it commences to yield honey, it does so profusely until the plant itself is ripe, or killed by frost. I would say to Mr. Hodges, or any one else intending the sowing of successive crops of buckwheat, that it is useless to sow any early in the season, to blossom before the 1st of August. I am intending to sow about 20 acres of it this season for my bees. I shall put the first crop of it in the ground about June 25; the rest about July 10. That from the last sowing will remain in bloom until frost comes, even if that is delayed later than ordinary.

O. O. POPPLETON.
Williamstown, Iowa, March 9, 1881.

Local Convention Directory.

1881. *Time and Place of Meeting.*

April 2—S. W. Iowa, at Corning, Iowa.
5—Central Kentucky, at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
7—N. W. Ohio, at Delta, Ohio.
13—N. W. Missouri, at St. Joseph, Mo.
D. G. Parker, Pres., St. Joseph, Mo.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
12, 13—Texas Bee-Keepers' Association, at McKinney, Collin Co., Texas.
W. R. Howard, Sec., Kingston, Hunt Co., Tex.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 18—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

◆

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A. I. Root)	3 00	2 75
Bee-Keepers' Magazine (A. J. King)	3 00	2 60
Bee-Keepers' Exchange (J. H. Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W. Thomas)	2 50	2 35
Bee-Keepers' Guide (A. G. Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T. G. Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

◆

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 18@20c. for strictly choice white comb in 1 and 2 lb. boxes; at 14@16c. for fair to good in large packages, and at 10@12c. for common dark-colored and broken lots. Extracted, 8@10c.

BEESWAX.—Choice yellow, 20@23c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 14@16c.; fair do., 14@16c.; dark do., 11@12; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 80@85c.

BEESWAX.—Prime quality, 20@23c.

CINCINNATI.

HONEY.—The market for extracted clover honey is good, at 8@10c. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY.—The "Vigilant" takes 600 cases to Liverpool. There is a slightly improved feeling consequent upon a little more inquiry, but prices show no material appreciation. Discouraging reports are received from the southern part of the State, as to the prospects of the coming crop, but other sections give promise of an abundant yield. With a good supply yet on the market, prices are not apt to be buoyant until the anticipated failure is more fully settled. We quote white comb, 12@13c.; dark to good, 9@11c. Extracted, choice to extra white, 5½@6½c.; dark and candied, 5@5½c.

BEESWAX—22@22½c., as to color.

STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., March 11, 1881.

◆

SPECIAL NOTICES.

☞ Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

☞ "What is the meaning of 'Dec. 81' after my name on the direction-label of my paper?" This question has been asked by several, and to save answering each one, let us here say: It means that you have paid for the full year, or until "Dec. 31, 1881." "June 81" means that the first half of the year is paid for, up to "July 1st." Any other month, the same.

◆

☞ We will send sample copies to any who feel disposed to make up clubs for 1881. There are persons keeping bees in every neighborhood who would be benefitted by reading the JOURNAL, and by using a little of the personal influence possessed by almost every one, a club can be gotten up in every neighborhood in America. Farmers have had large crops, high prices, and a good demand for all the products of the farm, therefore can well afford to add the BEE JOURNAL to their list of papers for 1881.

◆

HUNDREDS OF MEN, WOMEN AND CHILDREN rescued from beds of pain, sickness and almost death and made strong and hearty by Parker's Ginger Tonic are the best evidences in the world of its sterling worth. You can find these in every community.—POST. See advertisement. 9w4t

☞ When changing a postoffice address, mention the *old* address as well as the new one.

◆

☞ We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

◆

☞ The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

◆

☞ Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

◆

☞ Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

◆

LADIES WHO APPRECIATE ELEGANCE and purity are using Parker's Hair Balsam. It is the best article sold for restoring gray hair to its original color and beauty.

◆

☞ The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

◆

PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

◆

☞ Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

☞ Any one desiring to get a copy of the Constitution and By-Laws of the National Society, can do so by sending a stamp to this office to pay postage. If they desire to become members, a fee of $1.00 should accompany it, and the name will be duly recorded. This notice is given at the request of the Executive Committee.

◆

☞ It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Postoffice, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

☞ At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

◆

☞ We have filled orders for quite a number of Binders for the Weekly BEE JOURNAL. We put the price low, 30 per cent. less than any one else could afford to sell them, for we get them by the quantity at wholesale and sell them at just enough to cover the cost and postage, the latter being 21 to 23 cents, on each. We do this to induce as many as possible to get them, and preserve their Weekly numbers. They are exceedingly convenient; the JOURNAL being always bound and handy for reference. The directions for binding are sent with each one.

GREGORY'S
SEED
CATALOGUE.

My Annual Catalogue of Vegetable and Flower Seed for 1881, rich in engravings from photographs of the originals, will be sent FREE to all who apply. My old customers need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any Seed House in America, a large portion of which were grown on my six seed farms. *Full directions for cultivation on each package.* All seed *warranted to be both fresh and true to name*, so far, that should it prove otherwise, *I will refill the order gratis.* The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn, and scores of other vegetables. I invite the patronage of *all who are anxious to have their seed directly from the grower, fresh, true, and of the very best strain.*

NEW VEGETABLES A SPECIALTY.
12m5 JAMES J. H. GREGORY, Marblehead, Mass.

Valuable Book

Of Over a Thousand Pages.

The Crowning Culmination! A $5 Book for $2.50!!

MOORE'S UNIVERSAL ASSISTANT,

And Complete Mechanic,

Enlarged Edition, contains over **1,000,000** Industrial Facts, Calculations, Processes, Trade Secrets, Legal Items, Business Forms, etc., of vast utility to every Mechanic, Farmer, and Business Man. Gives 200,000 items for Gas, Steam, Civil and Mining Engineers, Machinists, Millers, Blacksmiths, Founders, Miners, Metallurgists, Assayers, Plumbers, Gas and Steam Fitters, Bronzers, Gilders, Metal and Wood Workers of every kind, Builders, Manuf'rs and Mechanics. 500 ENGRAVINGS of Mill, Steam, and Mining Machinery, Tools, Sheet Metal Work, Mechanical Movements, Plans of Mills, Roofs, Bridges, etc. Arrangement and Speed of Wheels, Pulleys, Drums, Belts, Saws, Boring, Turning, Planing, & Drilling Tools, Flour, Oatmeal, Saw, Shingle, Paper, Cotton, Woolen & Fulling Mill Machinery, Sugar, Oil, Marble, Threshing & Rolling Mill, do., Cotton Gins, Presses, &c. Strength of Teeth, Shafting, Belting Friction, Lathe Gearing, Screw Cutting, Finishing Engine Building, Repairing and Operating, Setting of Valves, Eccentrics, Link & Valve Motion, Steam Packing, Pipe & Boiler Covering, Scale Preventives, Steam Heating, Ventilation, Gas & Water Works, Hydraulics, Mill Dams, Horse Power of Streams, etc. On Blast Furnaces, Iron & Steel Manufacture, Prospecting and Exploring for Minerals, Quartz and Placer Mining, Assaying, Amalgamating, etc. 461 TABLES with 500,000 Calculations in all possible forms for Mechanics, Merchants and Farmers, 800 items for Printers, Publishers and Writers for the Press. 1,000 items for Grocers, Confectioners, Physicians, Druggists, etc. 300 Health Items. 500 do. for Painters, Varnishers, Gilders, etc. 500 do. for Watchmakers & Jewelers. 400 do. for Hunters, Trappers, Tanners, Leather & Rubber Work. Navigation, Telegraphy, Photography, Book-keeping, etc., in detail. Strength of Materials, Effects of Heat, Fuel Values, Specific Gravities, Freights by rail and water—a Car Load, Stowage in Ships, Power of Steam, Water, Wind, Shrinkage of Castings, etc. 10,000 items for Housekeepers, Farmers, Gardeners, Stock Owners, Bee-keepers, Lumbermen, etc. Fertilizers, full details, Rural Economy, Food Values, Care of Stock, Remedies for do., to increase Crops, Pest Poisons, Training Horses, Steam Power on Farms. LIGHTNING CALCULATOR for Cubic Measures, Ready Reckoner, Produce, Rent, Board Wages, Interest, Coal & Tonnage Tables, Land, Grain, Hay, & Cattle Measurement, Seed, Ploughing, Planting & Breeding Tables, Contents of Granaries, Cribs, Tanks, Cisterns, Boilers, Logs, Boards, Scantling, etc., *at sight.* Business Forms, all kinds, Special Laws of 49 States, Territories and Provinces (in the U. S. and Canada), relating to the Coll. of Debts, Exemptions from Forced Sale, Mechanics' Lien, the Jurisdiction of Courts, Sale of Real Estate, Rights of Married Women, Interest and Usury Laws, Limitation of Actions, etc.

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The work contains 1,016 pages, is a veritable Treasury of Useful Knowledge, and worth its weight in gold to any Mechanic, Business Man, or Farmer. Free by mail, in fine cloth, for $2.50; in leather, for $3.50. Address

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THOMAS G. NEWMAN.
974 West Madison Street, CHICAGO, ILL.

"American Apiary" for Sale.

About **150 Colonies of Bees**, in fair condition, in Langstroth hives; honey and wax extractors, empty combs, and the usual implements of an apiary. will sell for cash or trade for land.

PAUL DUNKEN,
0eow3t Freeman, Cass Co., Mo.

Agents Furnish pleasant, profitable employment. Local Printing House, Silver Creek, N. Y.
9y1

HONEY WANTED.—I desire to purchase several barrels of dark extracted honey, and a few of light; also, Comb Honey. Those having any for sale are invited to correspond, giving particulars.

ALFRED H. NEWMAN
972 West Madison street, CHICAGO ILL.

THE BRITISH BEE JOURNAL,

AND BEE-KEEPER'S ADVISER.

The *British Bee Journal* is published monthly at $1.75, and contains the best practical information for the time being, showing what to do, and when and how to do do it. **C. N. ABBOTT**, Bee Master, School of Apiculture, Fairlawn, Southall, London.

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A full variety of all kinds, including Melilot, Alsike and White Clover, Mammoth Mignonette, &c. For prices and instructions for planting, see my Illustrated Catalogue,—sent free upon application.

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Cook's Manual of the Apiary.—Entirely re-written, greatly enlarged and elegantly illustrated, and is fully up with the times on every conceivable subject that interests the apiarist. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, **$1.25**; paper covers, **$1.00**, postpaid. Per dozen, by express, cloth, $12.; paper, $9.50.

Quinby's New Bee-Keeping, by L. C. Root.—The author has treated the subject of bee-keeping in a manner that cannot fail to interest all. Its style is plain and forcible, making all its readers sensible of the fact that the author is really the master of the subject. Price, **$1.50.**

Novice's A B C of Bee-Culture, by A. I. Root. This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, **$1.25**; paper, **$1.00.**

King's Bee-Keepers' Text-Book, by A. J King.—This edition is revised and brought down to the present time. Cloth, **$1.00**; paper, **75c.**

Langstroth on the Hive and Honey Bee. This is a standard scientific work. Price, **$2.00.**

Blessed Bees, by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, **$1.00.**

Bee-Culture; or Successful Management of the Apiary, by Thomas G. Newman.—This pamphlet embraces the following subjects: The Location of the Apiary—Honey Plants—Queen Rearing—Feeding—Swarming—Dividing—Transferring—Italianizing—Introducing Queens—Extracting—Quieting and Handling Bees—The Newest Method of Preparing Honey for Market, etc. It is published in **English** and **German.** Price for either edition, **40 cents**, postpaid, or $3.00 per dozen.

Food Adulteration; What we eat and should not eat. This book should be in every family, where it ought to create a sentiment against the adulteration of food products, and demand a law to protect consumers against the many health-destroying adulterations offered as food. 200 pages. Paper, **50c.**

The Dzierzon Theory;—presents the fundamental principles of bee-culture, and furnishes a condensed statement of the facts and arguments by which they are demonstrated. Price, **15 cents.**

Honey, as Food and Medicine, by Thomas G. Newman.—This is a pamphlet of 24 pages, discoursing upon the Ancient History of Bees and Honey; the nature, quality, sources, and preparation of Honey for the Market; Honey as an article of food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, &c.; and Honey as Medicine, followed by many useful Recipes. It is intended for consumers, and should be scattered by thousands all over the country, and thus assist in creating a demand for honey. Published in **English** and **German.** Price for either edition, **6c.**; per dozen, **50c.**

Wintering Bees.—This pamphlet contains all the Prize Essays on this important subject, that were read before the Centennial Bee-Keepers' Association. The Prize—$25 in gold—was awarded to Prof. Cook's Essay, which is given in full. Price, **10c.**

The Hive I Use—Being a description of the hive used by G. M. Doolittle. Price, **5c.**

Extracted Honey; Harvesting, Handling and Marketing.—A 24-page pamphlet, by Ch. & C. P. Dadant, Hamilton, Ill. This gives in detail the methods and management adopted in their apiary. It contains many good and useful hints, and is well worth the price—**15c.**

Practical Hints to Bee-Keepers, by Chas. F. Muth, Cincinnati, Ohio; 32 pages. This pamphlet gives Mr. Muth's views on the management of bees, and embraces several of his essays given at Conventions, etc. It will be read with interest by beginners as well as those more advanced in the science of bee-culture. Price, **10c.**

Kendall's Horse Book—No book can be more useful to horse owners. It has 35 engravings, illustrating positions of sick hoses, and treats all diseases in a plain and comprehensive manner. It has a large number of good recipes, a table of doses, and much other valuable horse information. Paper, **25c.**

Chicken Cholera, by A. J. Hill.—A treatise on its cause, symptoms and cure. Price, **25c.**

Moore's Universal Assistant contains information on every conceivable subject, as well as receipts for almost everything that could be desired. We doubt if any one could be induced to do without it, after having spent a few hours in looking it through. It contains 480 pages, and 500 engravings. Cloth, **$2.50.**

Ropp's Easy Calculator.—These are handy tables for all kinds of merchandise and interest. It is really a lightning calculator, nicely bound, with slate and pocket for papers. In cloth, **$1.00**; Morocco, **$1.50.** Cheap edition, without slate, **50c.**

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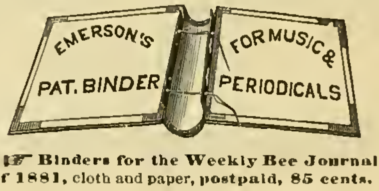

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One to three weeks, each insertion,	**20** cts.	per line.
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☞ We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

☞ The Texas Bee-Keepers' Association will hold their third annual Convention at Judge W. H. Andrews' apiary, in McKinney, Collin Co., Texas, on the 12th and 13th days of May, 1881.
Wm. R. Howard, *Sec.*,
Kingston, Hunt Co., Texas.

DON'T BUY SUPPLIES

Till you have read my new price list for the spring trade. Wax is cheaper now, so I can sell you a fine article of Comb Foundation cheap, and made on the best machine. Italian and Cyprian Queens, Bees, Hives, Sections, etc. Price List free to all.

J. V. CALDWELL,
12w6m Cambridge, Henry Co., Ill.

The Bee-Keepers Guide;
OR,
MANUAL OF THE APIARY,
By A. J. COOK,
Professor of Entomology in the Michigan State Agricultural College.

286 Pages; 112 Fine Illustrations.

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THOMAS G. NEWMAN,
974 West Madison Street, Chicago, Ill.

NOW READY,

Our New Circular and Price List for 1881. We have something new for every bee-keeper. Remember, we are largely engaged in practical bee-keeping, and know what supplies are of practical value in an apiary. You should see a description of our feeder, you will want one. Our new

Double-Draft Smoker

is perfection. See what one of the most practical and best informed bee keepers in the country thinks of it: "Since your great improvement in Smokers, as regards the double-blast, you undoubtedly have the inside track of all the others in the market. This, with the superior workmanship and materials used, should place your Smoker at the head of the list, and secure for it a favorable patronage for 1881." Price of Smokers, by mail, $1.50 and $1.75. Our book,

QUINBY'S NEW BEE-KEEPING

is pronounced the most practical work published. Price, by mail, $1.50.

We furnish everything used in advanced bee-culture. Send for Illustrated Circular to

L. C. ROOT & BRO.,
12smtf Mohawk, N. Y.

Free to All.

I will send free to any address a sample of the **BEST FOUNDATION** made for brood frames, also sample of **THIN FOUNDATION**, for sections, which can be used the full size of the section, and yet will not leave any "fishbone" in the comb honey. You can get nice straight combs without tin separators. Circular, describing how foundation is made and giving prices of apiarian supplies, free. Address, **J. A. OSBORNE**, Rantoul, Ill. 12w1tp

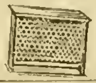
BEES FOR SALE,

In Simplicity and Everett-Langstroth hives. My bees are perfectly healthy in every respect—most of them good, strong colonies. Address,
J. P. HOLLOWAY,
12w1t Monclova, Lucas County, Ohio.

ITALIANS AND HYBRIDS—30 or 40 Colonies for sale low. Queens and Nuclei after May 15th. Address, R. M. ARGO,
12w3t Lowell, Garrard County, Ky.

WANTED—You to send for our Circular and Price list of **American-Italians.** Address,
JOS. M. BROOKS & BRO.,
12w6m Columbus, Ind.

FLAT-BOTTOM COMB FOUNDATION,



high side-walls, 4 to 16 square feet to the pound. Circular and samples free.
J. VAN DEUSEN & SONS,
Sole Manufacturers,
11tf Sprout Brook, Mont. Co., N. Y.

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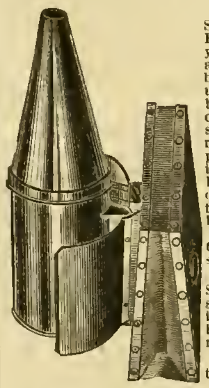

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CORRESPONDENCE.

Bee-Keeping in Ceylon.

We acknowledge, with thanks, the receipt of two copies of the Ceylon *Observer*, from J. Matthew Jones, Esq., of Halifax, Nova Scotia, who kindly sent them to us after having received them from a friend in that far-off island. They contain articles on the bees of Ceylon. In one of them the editor remarks as follows:

We are much indebted to our visitor, Mr. Frank Benton from the United States, for calling public attention in so interesting and practical a manner to a subject which has been too long neglected in Ceylon.....It is far from creditable to the natives of Ceylon and other comparatively permanent residents in the island that no systematic attempts have been made to utilize the honey-making bees so common in our forests. Mr. Benton has formed a very high opinion of the small island bee (*Apis Indica*) and it is purely from his interest as an apiarist that he has come forward to remind us of the value of a totally neglected industry. Cyprus, at this moment, has over 30,000 bee-hives in full operation, and official tradition has it that the number once exceeded 200,000. Mr. Benton is evidently of opinion that if the Sinhalese villagers as well as town residents took up the business with good will and intelligence, the "spicy island" could very soon become no mean rival to the classical island of Asia Minor. Be this as it may, we trust the subject will not be lost sight of by our Government Agents and their subordinate headmen. Our low-country rural population wants an official leading, and this could come through the village headmen or the village school-master, or both, if only the hint were given through superior authority. At the same time simple instructions as to the best mode of bee-keeping and honey-harvesting ought to be printed and circulated in the vernacular. Some years ago attention was called to the subject of "bee-keeping in Ceylon" in the columns of the *Observer*, but we cannot recall the date of the communication. Meantime as of interest in connection with Mr. Benton's paper we republish all that appears in Tennent's "Natural History of Ceylon" on the subject of bees:

Bees.—Bees of several species and genera, some unprovided with stings, and some in size scarcely exceeding a house-fly deposit their honey in hollow trees or suspend their combs from a branch. The spoils of their industry form one of the chief resources of the uncivilized Veddahs, who collect the wax in the upland forests, to be bartered for arrow points and clothes in the lowlands.

A gentleman connected with the department of the Surveyor General (Mr. W. Ferguson) writes to me that he measured a honey comb which he found fastened to the overhanging branch of a small tree in the forest near Adam's Peak, and found it 9 links of his chain or about 6 feet in length and a foot in breadth where it was attached to the branch, but tapering towards the other extremity. "It was a single comb with a layer of cells on either side, but so weighty that it broke the branch."

I have never heard of an instance of persons being attacked by the bees of Ceylon, and hence the natives assert, that those most productive of honey are destitute of stings.

The Carpenter Bee.—The operation of the most interesting of the tribe, the Carpenter Bee, I have watched with admiration from the window of the Colonial Secretary's official residence at Kandy. So soon as the day grew warm, these active creatures were at work perforating the wooden columns which supported the verandah. They poised themselves on their shining purple wing, as they made the first lodgement in the wood. enlivening the wood with an uninterrupted hum of delight which was audible to a consierable distance. When the excavation had proceeded so far that the insect could descend into it the music was suspended, but renewed from time to time, as the little creature came to the orifice to throw out the chips, to rest, or to enjoy the fresh air. By degrees a mound of sawdust was formed at the base of the pillar consisting of particles abraded by the mandibles of the bee. These when the hollow was completed to the depth of several inches, were partially replaced in the excavation after being agglutinated to form partitions between the eggs, as they were deposited within. The mandibles of these bees are admirably formed for the purpose of working out the tunnels required, being short, stout, and usually furnished at the tip with 2 teeth which are rounded somewhat into the form of cheese-cutters. These, when brought into operation, cut out the wood in the same way as a carpenter's double gouge, the teeth being more or less hollowed out within. The female alone is furnished with these powerful instruments. In the males the mandibles are slender as compared with those of the females. The bores of some of these are described as being from 12 to 14 inches in length.

Mr. Benton's paper is as follows:—

The Introduction of Bee-Culture into the Island of Ceylon.

During a short stay in Ceylon, I have made diligent inquiry in this part of the Island regarding the honey bee found here and have also endeavored to learn whether any bees were kept in hives or not. In the vicinity of Galle. I found no bees, except the wild bees in the jungle. When asked why they did not keep bees, the natives invariably replied: "It is too much trouble." But I do not think they know how to manage these insects. I was told that in the interior, bees were kept in earthen pots or jugs, a statement which was, however, contradicted by most persons with whom I talked.

There is no reason why a region so productive as the Island of Ceylon, and so well adapted in every way to the raising of bees, should not yield annually honey and wax to the value of many thousand pounds sterling. In the United States of America, this industry is still in its infancy, improved methods in bee-culture not having obtained in all parts and the "field" not being one-tenth occupied; yet the annual honey and wax product of that country exceeds 1,000,000 pounds sterling, and tons of pure nectar are yearly shipped to Europe, much of it being sold in English markets at 4½d to 6d per lb. One weekly publication and 6 monthlies are devoted to bee-culture in America. Those familiar with the condition of agriculture in Great Britain and Ireland admit that the industry is sadly neglected, yet movable comb bee hives with improved methods are gaining ground, and England has one journal devoted to the interests of apiarists. About a year ago I came to the Island of Cyprus, mainly for the purpose of rearing and sending to European countries and to America queen bees of the highly valuable race found on that island. Among the Greek and Turkish peasants of Cyprus I found a system of bee-keeping which, though far behind the modern approved methods, is still superior to the cruel plan yet followed largely in many of the countries of Europe, notably in France, and even in England, namely: the barbarous practice of brimstoning the bees to obtain their honey. The native bee-owners in Cyprus place the bees in clay cylinders, some of which are baked, others sun-dried, and these are then piled up and covered with a roof or embedded in the walls of the houses. The cylinders, which are about one yard long and 8 or 10 inches in diameter, have their ends closed by stone disks plastered in with clay, a small entrance hole being left the bees at the front end. When the time for taking the honey arrives the peasant bee-keeper removes the rear disk and having smoked the bees from the rear combs, cuts out a portion of the latter, leaving the bees, however, some combs of honey for their subsistence until the next gathering season arrives. According to the books of the Collector of Tithes the number of hives of bees kept in Cyprus in 1878 was 32,432, and the sales of honey and wax was no inconsiderable item to the peasant owners of bees.

If that poor barren Island, Cyprus, successfully robbed by various governments and rulers, and for more than 300 years under Turkish misrule, could constantly derive benefit through the culture of bees, surely Ceylon, under fostering Britain's care, can show a result a hundred-fold greater. That Cyprus in its flourishing days, before it was so nearly stripped of its forests, yielded much better results in this direction is shown by the figures given me by the officer mentioned above, who stated that there formerly existed on the island 200,000 hives of bees. In the scattering of pollen from flower to flower and consequent complete fertilization of the blossoms insuring a larger yield of fruits or seeds, the bees play no unimportant part. Here then is an industry that should go hand in hand with fruit growing, coffee planting, cotton raising, etc., and should add to the wealth of Ceylon by putting into a marketable form the nectar which now "wastes its sweetness on the desert air."

The Dutch Government seeing the advantages likely to accrue through the cultivation of bees in Java, sent to that possession several years ago a native of Holland, commissioning him to transport from Europe colonies of the Italian and Cyprian bees, and to superintend their introduction into that island. If this undertaking had not been successful, it is only because the government referred to was so unfortunate as to have selected for the work a man lacking the necessary practical experience and qualifications. The undertaking, however, has by no means been relinquished, and I feel safe in predicting that living colonies of the species *Apis melifica* will soon be landed in Java, having myself brought safely as far as Ceylon, 17 colonies of Cyprian and Holy Land bees, which are to be taken to that island.

For the Island of Ceylon, the rude method of keeping bees practiced in Cyprus and the adjacent Mediterranean countries would be preferable to no bee-culture at all, yet as wood here is abundant. hollow logs might be sawed into suitable lengths, a board nailed over the end for a cover, and the hive thus formed placed upon its open end upon a stand a few inches from the ground. An auger hole bored through the board cover would let them enter a box placed over it, and there deposit surplus honey. When filled, or at the end of the honey season, the box can be removed without disturbing the bees in the body part of the hive. Or, boxes of about 2,000 inches capacity can be treated in the same manner. Hiving the bees simply consists in shaking the cluster from the tree upon which it has lodged into the box, or into a basket, and then pouring it down before the hive. Most of the natives have little fear of bees; moreover, when bees are about to swarm, it is their instinct to gorge themselves with honey and when ther honey-sacs are thus filled, they never sting unless pressed in the hand or under the clothing.

The simple methods indicated above are surely not beyond the comprehension of the natives of Ceylon; indeed, I believe an additional step might be taken at the outset—a step which in the long run would be found wise.

Farm hives—something essential to modern bee-culture—might be introduced into some of the government gardens, and then would find favor elsewhere. Notches in the upper edge of the hive would insure the placing of the frames at proper distances, one from another, and the main advantages of the movable comb system would be learned by practice in handling the bees. To start this work, the government might manufacture and sell at cost simple movable comb hives, perhaps even stocked with bees, and for the present exempt the industry from taxation.

These are the ideas which suggest themselves to the mind of one whose stay in Ceylon must necessarily be very short, but who feels an interest in seeing a favorite pursuit receive the attention its importance demands.

FRANK BENTON.

For the American Bee Journal.

How to Feed Bees in Winter.

A. BENEDICT.

A great many bees are lost in April for the want of a little care; young bees are hatching rapidly, consume honey fast and may get out of feed; and they should be watched closely. A little feed may save many that otherwise would perish. If the weather is too cold for the bees to fly, I take the hive into a warm room, remove the cap and place instead a box that will fit tightly, so that the bees cannot escape. This box has neither top nor bottom. On the frames I put a sheet of newspaper, leaving plenty of space for the bees to come up in the box; the paper is to keep the bees from soiling the hive. I place the feed in the box and cover the box with mosquito bar. The hive should be put by a window to have plenty of light. After the bees have had a good cleansing flight I darken the window and let the room gradually cool, and the bees will go down and cluster. In this way bees can be fed and have a flight in the coldest weather. If the combs are very wet the hive should be put in a dark, dry and cool room, until the combs are dry. A good colony of bees will stand any amount of cold if they are kept dry. The only object for housing bees is to save honey.

Bennington, Ohio.

For the American Bee Journal.

Do Bees Puncture Fruit?

DR. WM. R. HOWARD.

To the question "Do bees injure or destroy sound grapes?" I answer no, positively. I have tried the following experiments: Bees were covering the grapes in the vineyard and seemed actually intoxicated on the wine. Removing several bunches, some of which had punctured berries and some sound ones, were taken to the apiary, and the bees soon found them and went to work vigorously. As soon as the punctured ones were exhausted the bees abandoned them and went in quest of something better. Then the bees were furnished some of the same lot and closed in the hive; as soon as the punctured ones were exhausted they seemed uneasy, then bunch after bunch of sound grapes were given them, which were eagerly covered, but as soon as it was found that none were punctured they fell back in dismay. Others conducted similar experiments, and nearly all had the same reports to make. I had one man come to me and tell me that his bees would clean them up all alike, so I went over to his place to conduct the experiment and satisfy myself, and when we arrived, lo! wasps, bees and ants were all promiscuously engaged in the feast; so we cleaned up and commenced anew, minding the wasps away for a few hours, and the fruit was abandoned as before, and after being left an hour or more to themselves, again we returned and bees and wasps were promiscuously engaged. Wasps were kept away by entomologists' nets to catch them as they came up, and a pair of collector's forceps to pick up those which escaped and alighted. Now for the physiological reasons why bees cannot commit the offenses charged against them.

The mandibles of the honey bee are not dentate or serrate, but are simply smooth, and beautifully rounded at the points, spoon or scoop-shaped, covered on the body with fine hairs rather long, and on the edges are covered with still finer hair, with a second row around the internal surface just suited to work soft wax and brush it up and give it the proper finish. If anyone will examine these mandibles with a good microscope it will satisfy him at a glance of the incapability of the honey bee to damage, by puncture, any fruits whatever.

Kingston, Texas, March 11, 1881.

For the American Bee Journal.

Perforated Zinc to Confine Queens.

D. A. JONES.

Mr. Dadant misconstrued my remarks at the Cincinnati Convention on the above subject. I claimed to have discovered, by the use of a perforated metal division board, that I could take far more comb honey from the body of the hive—not the second story, as I use one-story hives. I did not advise two-story hives, for I can accomplish better results with a single story. I said some bee-keepers, more especially ministers, wanted to leave their hives on the Sabbath day, and occasionally at other times, and that by lifting the comb with the queen and placing it behind the perforated metal division, they could not swarm, or if they did, they would return to the queen. Queens might be killed in a queen-yard sooner than in a hive; however, I have had none killed in the hive yet, and if I had, I would much rather lose the queen alone than the queen and swarm, too.

I am very glad Mr. Dadant mentioned his loss of one, and the conclusions he came to in the queen-yard trial. I will test the matter further this year. I am not aware that any person ever tried my plan of procuring comb honey in the brood chamber. I have not had enough experience with it to be very positive; but it appears to be all that can be desired so far, and I have prepared part of a lengthy article on the matter, which I hope to publish before the honey season sets in.

Years ago I advocated extracted honey, when I had to introduce it on the market, against popular prejudice; not so now. Many who thought comb honey was the most remunerative, are now modifying their opinions in favor of the extracted. Now, if my plan of taking comb honey from the brood chamber works as it did last fall, what would you think if you heard of people turning all their extracted into comb honey, after the harvest was over, and this within a few days? I have great respect for Mr. Dadant's opinion, and his efforts in marketing extracted honey deserve the thanks of all bee-keepers.

Beeton, Ontario, Canada.

For the American Bee Journal.

Theory and Practice.

L. H. PAMMEL, JR.

Without theory an apiary can never be conducted systematically, nor can any one master the science of bee-keeping without having acquired a theoretical knowledge of how an apiary should be conducted. True, men that only had a practical experience have met success, and through their labors bee-keeping has become a science, but their success was acquired through hard and patient toil. Hundreds of bee-keepers have never inquired into the cause of dysentery; nor do they know where wax comes from. Though the production of wax has nothing to do with the management of an apiary, it is one of the peculiarities of the industrious insect; yet, strictly not an evolution, and made from natural causes, no naturalist has as yet been able to say how honey is transformed into wax.

While it is true that all cannot be theorists, it is also true that theory alone cannot, will not, make us successful; but when we put correct theory into practice, we become masters of anything which we may undertake. Failures in bee-keeping and all other pursuits, are in most cases due to ignorance of the subject. Our agricultural schools are condemned by many, for teaching too much science. Such should not be the case; for we should elevate our pursuits as a scholar refines his thoughts. There is too much science in agriculture and bee-keeping for mere practice. There is every opportunity to master the theory. Our Bee Journal is doing a noble work; so also is such able books as Prof. Cook's Manual of the Apiary and Quinby's New Bee-Keeping. The bee-keeper and the farmer should have the same standing among their fellow-men as the merchant or the lawyer, and to that aim our agricultural colleges are working, and I hope that at a day not far distant they will be attended more. I also hope that our agricultural, horticultural and bee papers will be in larger demand, so that the editors will receive a fair recompense for their labors.

LaCrosse, Wis., March 15, 1881.

For the American Bee Journal.

Bee Farming in Ontario.

WM. F. CLARKE.

In April last, the Government of Ontario appointed a Commission to investigate the condition and prospects of agriculture in this Province. Their report has been presented to the Legislature, in the shape of 6 large octavo volumes, comprising about 2,400 pages. The first of these volumes contains the report proper, the remaining 5 being filled with the evidence on which said report is based. A brief extract from the report on bee-keeping, will no doubt interest the readers of the American Bee Journal. The Commissioners, in summing up on this topic, remark as follows:

"The bee-farming industry, in the Province of Ontario, had not, until recently, attracted a very large share of attention. For some years, however, it has been carried on by several persons with judgment and intelligence, upon improved methods, and very satisfactory results have attended these efforts. To-day, the Province can probably boast of operations, in connection with this industry, as spirited and enterprising as can be found in any part of the world.

The Commissioners have noticed with pleasure the formation of a Bee-keepers' Association, and have no doubt the bee-masters will derive as much advantage from mutual co-operation and frequent consultation, as the dairymen, fruit-growers and others."

This official recognition of our association is replete with encouragement, because it furnishes ground to hope that the government will enrich it with a grant of public money. The Province gives $1500 a year in aid of our 2 Dairy Associations, and $750 a year in aid of our Fruit Growers' Association, besides $10,000 a year toward the funds of the Provincial Agricultural Association. As the result of this liberality, our Dairy Associations are able to secure the best talent at their annual meetings, which are schools of dairying, holding 3 days. This year, we had Prof. Arnold, Hon X. A. Willard, Prof. Roberts, and Hon. Harris Lewis, veteran teachers of dairy science from the United States; besides our own native dairymen. The Fruit Growers' Association is enabled by means of the government bounty, to hold meetings for discussion and instruction twice a year in various parts of the Province, and all these bodies are in a position to disseminate reports and other documents full of information, with a liberal hand. We hope soon to have our Bee-keepers' Association in a like position, and then our prominent apiarian brethren across the lines may expect cordial invitations to come over and talk to us at our annual meeting, expenses paid, and something to-boot.

Up to the present time, no large foreign trade has been done in Canadian honey. In 1879 and 1880, Canada exported 7,940 lbs. weight, a small amount in itself, but indicating the commencement of a foreign trade. It would seem that hitherto the home consumption has been well nigh equal to the supply. The home demand will doubtless increase as our bee-keepers learn the art of putting up honey in attractive packages. Much of it has been thrown on the market, a wretched conglomerate of broken comb, brood, and millers' nests. No wonder customers do not care to buy such a mess. Very few of our people know anything about the extracted honey, or tempting looking sections of comb honey. There is every prospect of increased attention being paid to bee-keeping, but the country will absorb most of the extra product for some time to come. There is not a town or village where the sales of honey might not be multiplied ten-fold, as the result of a better style of bee-keeping. At present, it looks as if the business in this country were capable of indefinite expansion and on the eve of it.

Listowell, Ont.

For the American Bee Journal.

The Sale of Extracted Honey.

J. D. KRUSCHKE.

Extracted honey has been offered the consumer in this country for a number of years, but to-day, at the average, the demand is not so great as 5 or 6 years ago; the cause is undoubtedly adulteration and cheap comb honey. In 1872 I sold the first extracted honey in this town; my trade increased every year, until I had the misfortune to lose my bees by foul brood. An absence of 4 years has driven the extracted honey again to the wall. A few objections are ventured by consumers, and these are well considered by the Messrs. Dadant in their pamphlet on Extracted Honey, which should find its way into every home. Could this be accomplished the industrious bee-keeper would find a better income from his bees, while the idler, who has so much other work to demand his attention, who hardly ever opens a hive, and finds his task mostly completed in putting on and taking off the boxes, would be forced to give up the business, or give it the attention and care he does his cows, sheep, or farm, if he be a farmer. Any one who keeps bees because it affords an easy living, would soon find out the mistake if he undertook to produce extracted honey.

There is no telling how much honey might be consumed if the prevalent idea that it is a luxury which none but the rich can indulge was removed. People will buy A sugar and use it in the most lavish way who probably never taste honey from one year's end to the other, even if the price were equal, simply because they hold it a luxury which their means cannot indulge. Let all the bee-keepers stir themselves, and let the praises of extracted honey be heard throughout the land.

Berlin, Wis., March 20, 1881.

For the American Bee Journal.

Foul Brood.

W.

My eye caught an article in the Journal for March 10, by H. L. Jeffrey, on this subject, in which he appears to differ from all the writers I have read on this important subject; but for 10 years this has been my opinion although I anxiously wished some one would commence its discussion, to cause apiarists to think and write about it, and lead to a proper knowledge of it; but I refrained from writing my sentiments because all who wrote about it seemed to think that foul brood was a disease to which bees were subject, and that the disease was spreading and might exterminate whole apiaries in large localities. The acts of the Michigan Convention is a proof.

Ten years since I had foul brood in my apiary, which led me to seriously reflect on the nature of the disease, and what would be the cure. I then formed my ideas, which I have had no occasion to alter. At that time one of my colonies especially was so badly affected with foul brood that the effluvia was very offensive, several feet from it, and when I opened the box and examined it, it was a mass of putrescence, and although bees from healthy colonies entered to rob it, they certainly were not affected by it; this led me to believe that it was not contagious, but only the effect of want of proper judgment and application. Since that time I have used the means which I then determined on, and have not since seen the disease in my apiary, although I have had 80 colonies at once.

I am willing to give you my further experience on this matter if desired; I do not like to differ from so many able writers on this subject.

Let all who have suffered from this disease express themselves fully in your excellent BEE JOURNAL, no matter how ever little they write, and let this disease be properly explored.

Ontario, Canada.

[By all means, let us have the facts and experiences. We want "light."—ED.]

* * *

For the American Bee Journal.

The Use of Perforated Zinc.

O. O. POPPLETON.

"At the National Convention, in Cincinnati, Mr. Jones announced that he had made an important discovery. This discovery consists of a sheet of perforated zinc, to prevent the queen from laying in the upper story, or in part of the combs, as well as to hinder the bees from swarming, by preventing the queens from going out of the hives."

The above is an extract from an article published on page 67 of the BEE JOURNAL, which forms the text for the balance of the article. I notice that several others have written in the same strain.

I was present at the Cincinnati Convention, was quite near to Mr. Jones when he made the statement referred to above, and also had the advantage of an hour's conversation with him on the day after the Convention adjourned, nearly all of which was on this subject, and it is certainly news to me that he "announced that he had made an important discovery, which discovery consists of a sheet of perforated zinc to prevent the queen from laying in the upper story," etc. All that has been written in the BEE JOURNAL to prove that he is not the first inventor of using perforated zinc, is simply so much trouble thrown away, as he very distinctly stated that fact himself.

What Mr. Jones did claim was that he "had discovered a new method of using perforated zinc in a hive, so as to have the honey stored in sections in the centre of the hives instead of at the sides or on top." He remarked that he "first experimented with zinc with round perforations, but this did not work on account of the pollen being scraped off the bees legs as they passed through, but that while in Europe he noticed that bee-keepers there were using zinc with oblong perforations, the use of which remedied the objection to the use of round perforations."

It will be seen by this that Mr. Jones very plainly said that he first found the perforated zinc such as he uses, in Europe, being essentially the same statement that Mr. Dadant, in the article referred to, attempts to prove.

Mr. Jones said nothing whatever about preventing the queens from laying in the upper story, as the special advantage of his method was to have the honey stored in the lower, and in fact, only story in the hive.

The statement that this device can be used to prevent swarming is certainly a legitimate one for criticism, but I see that the reporter, in condensing Mr. Jones' remarks, was necessarily obliged to give this part of them more prominence than I think Mr. J. intended them to have. My recollection is that this part of his remarks was thrown in more as a suggestion than a fact.

I hope this article will prevent other writers from making the mistake of charging Mr. Jones with making the statement that he had first discovered the use of perforated zinc, or recommending it to prevent queens from going into upper stories, etc.

Williamstown, Iowa. March 18, 1881.

CONVENTION NOTES

Ventura Co., Cal., Convention.

The Ventura Co. Bee-keepers' Association held their regular quarterly meeting in Santa Paula, Feb. 5, Vice-President Keene in the chair. The minutes of the last meeting were read and approved. The business committee reported through Mr. Wilkin, that no programme had been arranged for the meeting, and suggested that speaking on different subjects of interest to bee-keepers be the order of the day. As there was no other committee to report, the meeting took a business turn, and a general discussion ensued on the best and most economical way of canning honey for market.

Mr. Wilkin was called upon to give his views on small packages, as he had had considerable experience in that line the past season. He said that he had sold honey in Ventura, in small cans and netted one cent per pound more than that in large cans. He also stated that in the foreign markets honey was retailed in very small quantities, and that a great deal of our honey was recanned for that purpose, and he therefore thought it best to can it in small cans at once.

Mr. Hund stated that a firm in New York had informed him that honey put up in 12 lb. tins would sell in that market as a retail package, and at a higher figure than in anything larger, and for the general trade he preferred them to anything smaller, and thought he should use them the coming season.

Mr. Wilkin stated that he had an order from England for a large lot of honey in that shape.

Messrs. Corey, Keene and others spoke in favor of small packages.

The convention adjourned after adopting the following preamble and resolution;

Whereas, The bulk of our honey is recanned before it goes to the consumer, at a loss of first package and at a greater expense than we could do it at home, owing to the difficulty of getting it out of the cans, especially when candied (thus making a discount on candied honey) and other disadvantages, besides laying it liable to adulteration by unscrupulous dealers. Therefore be it

Resolved, By this association, that we recommend bee-keepers to—as much as possible—put their honey up in retail packages, such as 2 lb. tins *full weight*, and 12 lb. or gallon cans—the latter more especially preferred at present.

R. TOUCHTON, *Sec.*

Santa Paula, Cal.

* * *

Lancaster Co., Pa., Convention.

A meeting of the bee-keepers of Lancaster Co., Pa., was held on March 14, in Lancaster, Pa.

The meeting was called to order by the President, Mr. Peter S. Reist. The following members were present: Peter S. Reist, Litiz; J. F. Hershey, Mt. Joy; Elias Hershey, Paradise; John S. Rohrer, city; Levi S. Reist, Oregon.

Peter S. Reist reported that out of about 60 colonies, which he had on the summer stands, he lost about 5 during the winter, He did not think any of them froze; several starved. The last time he saw them they were flying and appeared to be in good condition. He put a wind break on the back part of the hives, but the fronts were open, the same as in summer. He did not feed any during the winter.

John S. Rohrer said he had 6 colonies of bees; wintered them on the summer stands. About the 1st of November he cleaned the hives on top, and then closed them up with the exception of $\frac{1}{4}$ of an inch. When the warm weather came, his bees began to fly out. He thought a great many bees died during the winter owing to too much surplus being left in the hives. He made it always an object to prevent swarming; as soon as a cap is full he takes it away, and this he thought in a measure prevented swarming.

Mr. J. F. Hershey put his 113 colonies into a bee-house. He divided a great many, and had lost so far 3 small colonies; the rest are in good condition, although not very strong in bees. In February he took them all out, and found many of them to have young bees. He then put them back again and they are in the house now, although he expects to take them out as soon as the weather gets warmer.

W. B. Detwiler, of Mt. Joy, put into the same style of winter quarters, 80 colonies, and had not lost one.

H. H. Myers, of Spring Garden, put into winter quarters 12 or 15 colonies of natives; and they were doing well. These bees were wintered in houses also. He found that those who left the bees unprotected had lost a great many.

Elias Hershey put into winter quarters 29 colonies, 9 of which died, and the rest are very weak. He heard from his neighbors, that a great many of theirs had died. He left his bees on the summer stands. His father, Jacob Hershey, had 10 colonies of natives; they were all well and hearty. Most of his bees had died of dysentery or diarrhœa, not of starvation; some of them died of cold.

Mr. Differndeffer called the attention of the society to the fact that the danger was not yet over. A great many of the colonies were weak, and he desired to know how they could be built up.

Mr. J. F. Hershey said the proper way was to take all the combs from them except just as many as they could conveniently cover. They should be well fed and carefully attended in regard to warmth; they should also be kept quiet. They should not be allowed to fly out very much in the spring, because a great many would get chilled and drop down. As soon as they are getting a little stronger, another comb should be given them, and in that way continue until you have a full-sized colony again. There are a great many of what are called weak colonies that can be kept alive, if they are attended to properly, but if left to themselves, they will surely die. The strong ones must also be carefully looked after. Everything should be kept clean and sweet about the hive, and the hives should be guarded against the cold air.

Levi S. Reist had on the summer stands, 3 colonies, and lost one. The other 2 are doing well. The one that died had not honey enough to carry it through the winter, and starved.

Adjourned to meet on the 2d Monday in May.

* * *

Read before the N. E. Convention.

The Great Revolution.

A. WEBSTER.

Are we on the eve of a great revolution in bee-keeping? Indications are that old things are passing away and all things are becoming new. Shall we not say rather that we are in the midst of a revolution that commenced with the invention of movable combs, has progressed through several stages and has not yet culminated? What then, is now wanted to complete this revolution and combine all the various improvements that are now in use in our harmonious system that shall be so nearly perfect as to win general approval and adoption?

I have given this subject long and careful consideration, and have been forced to the conclusion that it is a bee hive all parts of which shall be constructed and combined in strict accordance with the laws that govern the working instincts of the honey bee, and that shall harmonize those instincts with the convenience and wishes of the bee-keeper. Have we such a hive at present? I think not; or why does it not win general approval? The Langstroth hive has, perhaps, the most extended popularity of any. Yet who has not felt that it was not wholly satisfactory? Was not a perfect hive? The numerous, nay, almost innumerable changes and modifications that have been devised in this form of hive attest the general existence of this feeling. Do any of these modified hives satisfy and leave a conviction that there is nothing beyond? If not, why not? Can it be that the great defect is in some vital point which has been entirely overlooked? Not entirely overlooked perhaps, for one inventor seems to have an inkling of the true mutual relations of the store and brood combs. He has adopted an original system, which is thought by some to promise grand results, but is not beyond criticism, and it is feared by others that an unfortunate choice of forms and combinations will in a measure, at least, countervail the advantages claimed.

And now naving intimated that the mutual relations of the brood and store combs are the vital points in bee-hive construction that needs development, let me produce practical questions for discussion in this convention, and by bee-keepers generally. Questions of more vital importance than appears at first view, and that must be settled by mutual agreement among bee-keepers, before a universal bee hive and system of management, and a uniform honey box or set of boxes is possible.

What is the best thickness of space to give to each brood comb, in hives where foundation is used and drone rearing entirely exhausted? And what is the best thickness of space to give each store comb, either in sections for comb honey or frames for extracting or feeding that the same hive may be equally well adopted for either purpose?

Now in considering this question let us first of all inquire of those great masters of apicultural science, the honey bees, how they would answer them, if their purposes required a separation of the brood and store combs, as the bee-keepers do. Fortunately this answer is not hard to find nor difficult to understand. If we examine a box hive or bee-gum filled with combs by a strong colony during an abundant yield of honey, we shall find worker and drone combs in about equal numbers. We shall also find 8 combs to the foot—2 combs to 3 inches of space. When in use for breeding, the worker combs are $\frac{7}{8}$ of an inch thick and the drone combs $1\frac{1}{4}$. Now 7 and 10 have about the same ratio that the sides of a square has to its diagonal. Apportioning the space in a 12 inch hive in the same way gives $1\frac{1}{4}$ inches for each worker comb, and $1\frac{3}{4}$ inches for each drone comb. Therefore if we fill the breeding department of our hive with worker combs, giving each $1\frac{1}{4}$ inches of space and the storing department drone combs, giving each $1\frac{3}{4}$ inches of space, will it not be about right? Such seems to be the opinion of the bees, in which your essayist coincides.

This arrangement will give brood combs of sealed honey about $1\frac{1}{8}$ inches thick and store combs $1\frac{5}{8}$, or $1\frac{1}{2}$ inches thick if separators are used. Applying the same ratio to combs of greater thickness, we find that brood and store combs correspond to each other as follows, viz:

Brood Combs:	1 5-16 in.	Store Combs: 1 27-32 in.
" "	1 6-16 in.	" " 1 30-32 in.
" "	1 7-16 in.	" " 2 1-32 in.
" "	1 8-16 in.	" " 2 4-32 in.

I hope that these questions will be thoroughly discussed from every point of view, and an agreement arrived at if possible. Whatever it may be, I have no doubt that the bees will accept it gladly if suitable frames and foundations are furnished them. And for myself as an individual bee-keeper, I am willing to yield my opinions for the sake of uniformity. It would be better in this matter to be nearly right in harmony with the fraternity, than exactly right alone.

* * *

☞ Programme of the Northwestern Bee-Keepers' Union, to be held at Hastings, Minn., May 17, 1881:

1.—Address of Welcome, by J. N. Searls.
2.—Reports of committees.
3.—Reports from all—number, kind and condition of bees.
4.—A paper by Pres. A. Tidball, on honey-producing plants and flowers.
5.—A paper by Dr. P. Barton, of St. Paul, on honey as food and medicine.
6.—Apiary culture and our fairs, by Hon. William Avery, of St. Croix Falls, Wis.
7.—A paper on sales of honey, by F. B. Dorothy, of Taylor's Falls, Minn.
8.—A paper on wintering bees, by L. Day, of Farmington.
9.—Progressive bee-culture, by J. G. Teter.

The above subjects will be open for discussion. In addition to the above, the following subjects are suggested:

1.—Essential properties of a good bee hive.
2.—How to prevent and cure foul brood.
3.—How to prevent spring dwindling.
Appointment of committees.
Election of officers. Adjournment.

☞ All bee-keepers are cordially invited. Entertainment free.

F. B. DOROTHY, *Sec.*

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., MAR. 30, 1881.

Repairing Losses by Dividing.

I began the last season with 10 colonies—8 blacks and 2 Italians—and lost all this winter but the Italians, which are strong and in good condition. I never read a bee book, nor saw the BEE JOURNAL till last fall. Had I subscribed for the BEE JOURNAL a year sooner, it would have saved me $40. I thought I had a good start last summer in the business with 10 colonies, but now I have only 2. Can I build up these two, and ever hope to succeed? Will a good manual help me? What can I do with 50 or 60 frames of honey on which the bees starved? S. F. MILLER.

N. Manchester, Ind., March 12, 1881.

A seeming misfortune is sometimes a blessing in disguise, and we doubt not, with your spirit of inquiry and the experience of the past winter, you will so prove it. You have every facility for building up, and with the aid of a good manual and the hives and combs of honey left over from the wreck, it will be a work of interest and a profitable experience to replace your losses. Your untenanted hives we suppose to be exact duplicates of those now occupied by the Italians; if not, now is the time to overhaul them, as you should have but one style of hive. As soon as settled weather comes on, when fruit trees are in bloom and the air is redolent with the perfume of spring flowers, you can commence your work of dividing for increase, as follows: Remove your best colony to the stand where a new colony is to remain and place in its stead an empty hive, from the hive removed lift the frame on which you find the queen, and place with the queen in the empty hive on the old stand, now take another frame with sealed brood from the hive removed and place alongside the frame with the queen; close the remaining frames together in the hive from which the queen was removed, and put one of your old combs on each outer side, and you are done with the interior of this hive for ten days. Now, from your other colony (which you will leave on its old stand) remove three combs of sealed brood, shake off the bees, and place in the new hive with the queen; close the combs together, put one old comb on one side and two on the other, close the hive, and you are through with that for the present. The five combs with brood, in the new hive, place in the center, fill up the hive with old combs to its full complement, and your first division is completed. On the 10th day, remove both hives containing queens, and put empty hives where they stood; now from the queenless colony remove two frames each containing a queen-cell, and place one in each empty hive (if three frames cannot be found containing good cells, graft them in as directed in Cook's Manual, page 167) leaving one in the hive where found, and put in two frames of brood (one from each colony removed). This makes your queenless colony full. From the colonies with queens, remove four frames each and place in new hives, each four on their old stand. This will give you five hives, two containing five frames of brood and queen cells, two with five frames of brood and queens, and one with eight frames of brood and queen cell. To the first four, place two old combs, one each side and put in a division board. Every three days add an old comb till full. If the month of May is warm and pleasant, and increase is the main object, you can divide again the first of June. About May 20, remove the queen from your best colony with the frame she is occupying, put her in an empty hive, then add two frames from each of the four with queens; now fill up each hive with old combs, and you have six hives occupied. Nine days after, or when the cells in the queenless colony are ripened, remove the five with queens, and start five new ones where they stood, by taking five frames of brood from each, grafting a good queen cell into each, and filling all up with combs or good foundation. During white clover bloom the colonies will build up very rapidly. In the absence of clean, bright combs, use good foundation, and supply it no faster than the bees can draw it out.

In all manipulations of this kind, do nothing without ascertaining first the whereabouts of the queen; with good Italians this is not difficult, and a slight oversight might be disastrous. Do not spread brood too rapidly, for if chilled disease may follow. Do not begin stimulating too soon; 10,000 bees and eight frames of sealed brood, on the 15th of May, in this latitude, will give better returns than 50,000 bees on April 1st, and a cessation of brood-rearing during the latter part of April and the month of May. We can see no economy in building up strong colonies very early, only to feed through the bleak weather, and die with age just when wanted most. With judicious dividing, and a late fall bloom, considerable surplus may be obtained, but very little early surplus, unless basswood is profuse, or sweet clover very abundant.

* * *

☞ Mr. T. F. Bingham has removed to Abronia, Allegan Co., Mich., where his apiary is and has been located for years. Any letters, however, sent to Otsego will reach him, as it is only a few miles from Abronia.

* * *

☞ We have received a copy of "The Domestic Advertiser," a compendium of household receipts. published by Mr. J. H. Nellis, Canajoharie, N. Y. Its 30 pages are full of good receipts of all kinds, and it will be valuable to every housewife.

* * *

☞ Our correspondents have been so liberal with their communications that we have found it necessary to condense, and give them much of the room usually devoted to other departments.

* * *

☞ This number of the BEE JOURNAL will be found intensely interesting. It embraces nearly every topic in bee-keeping, and contains news from all parts of the globe. During the storms of the last few months we have received many letters complaining of great irregularities and delays in the receipt of their paper. While these complaints are a gratifying proof of the interest with which the BEE JOURNAL is received, we regret their occurrence, and assure our readers that the paper has always been mailed promptly. The delays have been caused by the storms.

AMONG OUR EXCHANGES

LONDON JOURNAL OF HORT.

Bees in New Zealand.—The following article from the *New Zealand Herald*, we find in the above excellent paper:

Among the many varieties of the honey bee few are held in greater esteem than the Italian variety, or, as it is generally called, the Ligurian bee. They are industrious workers, and delight in honey-gathering. In their hives there are fewer drones than in the hives of the common honey bee, and the queen produces eggs all the year round, though the number is considerably fewer in the winter season than during the warm days of summer. About the time of the American Centennial Exhibition, several attempts were made by Mr. Thomas Russell to introduce them to the province of Auckland, through agents he employed in San Francisco. The first efforts were made by sending queen bees, but the inmates of the several parcels of those that were forwarded all perished before reaching their destination. As a last effort a hive was sent forward, but it was evident that there was something still to learn to secure the safe transportation of these bees long distances, for they were nearly all dead before reaching Auckland, and the few sickly ones that reached here died a few days after being landed. The expense of these efforts was borne solely by Mr. Russell. Nor were Mr. Russell's failures to introduce these bees singular, for Mr. A. McKay, of Brisbane, who made efforts to the same end, at the same time was equally unsuccessful to enrich his adopted land.

But while the suggestion was made to the Colonial Industries Commission to spend £500 of public money to send a person home to make an attempt to do that in which so many failures had already been recorded, private and patriotic enterprise was successfully accomplishing that for which State aid was being solicited. Mr. S. C. Farr, Secretary of the Canterbury Acclimatization Society, had already communicated with R. J. Creighton, formerly of Auckland, and now in San Francisco, on the subject, and Mr. J. H. Harrison, of Coromandel, had also communicated with his brother, Mr. W. G. Harrison, San Francisco, formerly of Auckland, for the same object. As Mr. Creighton is regarded as the official representative of New Zealand in the City of the Golden Gate, both applications came to be referred to him. He made his arrangements accordingly, and the success that has attended them deserves public recognition on behalf of the colony. Mr. Creighton regarded these efforts at acclimatization as public enterprises, and not efforts for private gain, and acted accordingly. Hives were made upon a new construction, and a place provided in which was kept a wet sponge, which appears to have secured that cool and moist atmosphere necessary for bees, so that when they arrived they were as lively as possible, and seemed to be in vast numbers.

The two boxes were sent through the Acclimatization Society, and entrusted to the care of Capt. Cargill, at San Francisco, who took them into his own cabin, and daily attended to the wants of his lively colonists. Fresh water was daily supplied to the sponges, and everything done that was requisite to the health and comfort of the bees. The result is an unmistakable success, and the colonists of New Zealand are deeply indebted to Capt. Cargill and Mr. Creighton for what has been accomplished. Mr. Creighton, in his letter to Mr. Cheesman, the Secretary of the Acclimatization Society, states that Mr. Harrison is not to regard his hive as an object for private profit, but the bees are for the good of the colony, and when swarms are obtained they are to be distributed in the same way that he has been provided with them.

In August last Mr. A. H. Newman, of Chicago, shipped a full colony of bees to Mr. Thomas Wilson, at Kaipoi, Canterbury, New Zealand, care of Mr. Creighton, San Francisco. These bees were received in New Zealand in good condition, considering the length of time in transit, and the hazardous portion of the trip from Chicago to San Francisco by rail. They were in a ten-frame Langstroth hive; his manner of preparing them was described in the BEE JOURNAL of Jan. 5, 1881. Mr. Wilson, in a letter to the editor of this paper, written in January, says this colony has been increased by the dividing process to four good colonies.

Mr. A. H. Newman informs us he has booked an order for several colonies this spring for Mr. A. V. Macdonald, Parnell, Auckland, New Zealand. We are in receipt of the following letter, dated Jan. 3, 1881:

....I have heard a statement made that the Ligurian bees, when they have not been obtaining flowers requiring the use of the long proboscis, gradually lose the length, and with the shorter tongue do not gather from red clover. As some colonies have already been obtained from the United States, it would be well to settle the point, Do Ligurian bees successfully fertilize red clover? I lately had a small swarm sent me from the country, minus the queen. I let them remain all night in the hive I had transferred them to, and in the morning shook them out, very weak and doleful, in front of a strong colony in full work, but a little on one side of the entrance, and left them to their fate. Half an hour afterwards I found them all on the alighting-board fraternized, the bees of the hive pushing through the throng with pollen, and others starting out without molesting them. I presume that the hive bees being very busy, and the queenless bees going quietly to the entrance, had not excited suspicion, and thereby obtained the same scent and were accepted. In this latitude we have no trouble with wintering bees so far as cold is concerned, but colonies are much weakened by working in winter when we have constant squalls of rain, which must destroy numbers.

A. V. MACDONALD.

At times when there is a scarcity of other nectar-yielding bloom, we have observed great numbers of Ligurian or Italian bees working on red clover; but only at such times. We do not believe it is a favorite with any honey bees, and is only utilized as a *dernier resort*, as are several other honey plants. That there is any permanent contraction or expansion of tongue is not true, though it might be possible to develop or obliterate physical traits by careful or negligent breeding.

* * *

Care of Weak Colonies.—Mr. F. L. Dougherty, in the *Indiana Farmer*, gives the following advice:

Many colonies that have passed the severe winter have come through in a very weak condition and will require careful handling to build them up into good colonies, ready for the honey yield when it comes. Weak feeding should be done inside the hive if possible. It is not necessary to make syrup with which to feed at this season, sweetened water is just as good, two parts sugar and one of water. The quantity to feed should depend on the strength of the colony, and should be placed as conveniently as possible to the brood cluster. If it can be given to them warm, so much the better. We know of nothing that will operate as effectually against spring dwindling as feeding this thin syrup. It gives the bees food and water, and this with sufficient heat, stimulates to brood rearing. Their instinct inclines them to cluster in the brood nest to keep up the necessary heat to accomplish this desirable result; and as they have both food and water inside the hive, and work to accomplish also, they seldom venture out unless the weather is so pleasant that they can easily return again.

SELECTIONS FROM OUR LETTER BOX

The Lime Remedy.—Clark county contains many practicable and enthusiastic bee-keepers. We are not all discouraged, as we have a few left yet. Such losses were never witnessed by the oldest inhabitants in this part of the country; one person had 40 colonies in a bee-house, all are now dead. Another had 32 on the summer stands; all gone but one; another had 60, half in cellar, half out doors; all are gone but 8; those in cellar did no better than those out doors. Another had 12; all gone. Another had 4; 2 are left. Another had 125, lost over ½, 3 weeks ago. One had 9 and lost one. Another had 5 and all are dead. I lost 4 out of 10, in double-walled Langstroth hives except 3 colonies, which are now dead. I took to the lime project "like a duck to the water" and have used lime in 3 colonies and they are as strong as bees usually are in the middle of April. I like the Weekly BEE JOURNAL very much. J. C. OLDHAM.
Springfield, O., March 19, 1881.

Bee-Keeping in Kansas.—I bought 2 colonies last June, but did not get them home until July 5; they gathered enough honey for winter but no surplus. I am wintering them on the summer stands in Langstroth hives, with chaff cushion over the frames and an outer case, but not packing between the case and hive. They are wintering nicely, but had no flight all winter. Early plants are getting green, but we have had the hardest winter ever known here; twice the mercury was 18° below zero at sunrise. There are not many bees in this vicinity and what are here are poorly cared for, and some have died, as they have to go through the winter the best they can. Will Emerson's binder hold more than one volume of the Weekly JOURNAL? I wish the JOURNAL all prosperity. It is a welcome visitor. S. C. FREDERICK.

[The binder will hold but one year's numbers. They can be removed and and bound, and the binder used for years.—ED.]

Chaff Packing.—I have set some grape vines out in my bee yard and would like to put sawdust in if it will not hurt the grapes; if so, please answer in the JOURNAL. Bee-keeping was a failure last season; the bees obtained no honey from white clover, and not much from linden. The most honey I got was through August. I had 12 colonies last spring and got about 125 lbs. of surplus honey, all extracted. Increased to 22 and lost 5 through this cold weather. I now have 17 in the cellar. I put them in the cellar Dec. 10. They are doing well so far. I wish success to all the bee-keepers and the BEE JOURNAL. I take 4 bee-papers, and I think the Weekly the best of all. It is cheap at $2 a year. DAVID K. KNOLL.
Salamonia, Ind.

[Keep the sawdust away from the roots of the grape vines.—ED.]

Wintered Safely by Chaff.—My bees gave but little surplus honey last season. I commenced the season with 18 colonies and increased to 34 by natural swarming. I never saw bees breed up so strong in numbers, and most of the hives were literally crowded. They went into winter qnarters very strong and nearly all with plenty of honey, but our winter has been so severe and long that I feared for them. They had no flight until late in Feb., when I found they had dysentery. I examined them to-day. One froze just before New Years and one I found dead with empty combs; both were weak in the fall. I found one just out of honey and gave them some; the rest are strong in numbers and have plenty of honey. So I have saved 32 out of 34, which I call pretty good. I wintered on summer stands with chaff cushions on top, and entrance closed to about 2 inches. Seventy-five per cent. of the bees in this vicinity are dead; many have lost all. I think the Weekly BEE JOURNAL is a great advance. Success to it.
A. D. STOCKING.
Ligonier, Ind., March 18, 1881.

Bees Strong and Healthy.—The reports from this section are: some have lost all their bees, some a part, and others report that their bees have wintered well. I placed 68 colonies in the cellar on Nov. 18, and put them out on March 16. The thermometer was at 45°, it being the first suitable day. They came out strong and healthy. My loss so far is one colony. C. H. FRANCE.
Erie, Pa., March 20, 1881.

Absorbents.—My bees are nearly all dead, but I can not give it up yet. I expect that some absorbent, such as quick-lime or sulphuric acid, would be of great advantage in wintering. The BEE JOURNAL is a pleasure to me.
S. P. HYDE.
St. Joseph, Mo., March 16, 1881.

No Surplus nor Increase.—Bees fared badly in this section last year; there was no surplus nor swarms. I started in the spring with 20 good colonies; 4 having lost their queens I united them with others. I put 15 in the cellar in the fall; 2 perished, one was weak and died after taking them out. I left one out-of-doors in a double Langstroth hive, but it perished before winter was half over; the rest were in American hives. I have a double cellar, and put them into the outside one; it was too damp, and was kept about the freezing point. I put them in Nov. 15, and they did not get a flight until March 2; they have had several flights since. The bees in this part of the country have mostly perished. I sowed buckwheat, and last fall my bees obtained honey from it; I also sowed some alsike clover last spring; it took well and stood the winter better than red clover. I am pleased with the Weekly BEE JOURNAL. S. H RUEHLEN.
Jerome, O., March 21, 1881.

Bees in Nebraska.—The past winter has been the severest we have had for 20 years. Snow still covers the prairie, one foot and a half deep. We cannot rely for honey on the natural production of our prairies; we must sow if we propose to reap. Our colonies are composed of Italians and the black bees; the Italians, of course, being our favorites. The black bee is a good honey gatherer, but as mean as it can be for stinging. Out of 54 colonies we have lost 8 up to the present time; some from starvation and others from dysentery; if they had not died from dysentery they probably would have starved. The intense cold weather continually from the beginning of winter until spring, did not allow them to move from one comb to another; consequently they could not reach their stores. I am speaking of those wintered out-doors, and not properly prepared, as was pretty generally the case here this winter. Our bees have mustard plant, clover, fruit blossoms, golden rod, buckwheat, and what they could get from other small blossoms that abound in the prairies. The prophecy that the year 1881 will be a good honey year makes the heart of the apiarist glad, for well he deserves a bountiful year. One man lost 60 out of 75; this is the greatest loss that we know of in this county. We hail the Weekly BEE JOURNAL with delight, and think that all interested in apiculture should have it. We pronounce it the best bee-paper in America. Is the Langstroth hive still covered with a patent? LEOPOLD MOLLER.
Fremont, Neb., March 22, 1881.

[There is no patent on the Langstroth hive now.—ED.]

Bees Starving in the Cellar.—Last evening I examined my bees in the cellar and found 8 dead, and others in a starving condition. I bought all the cream candy in the stores and sent for more. It is better for cellar feeding than syrup. Their condition takes me by surprise, as they were heavy last fall. J. E. CADY.
Medford, Minn., March 24, 1881.

Dovetailed Sections.—I will say to Mr. Lewis, that I was not comparing *his* dovetail work with *his* one-piece section. The advantage in a section that will stand firm at any angle, is that four of them put together will make a matched square, proving them to be square; can you make four solid blocks that will do it? Will one-piece sections do it, unless strained? As long as bees use glue (propolis) we need close joints to work rapidly and with comfort.
JAMES HEDDON.
Dowagiac, Mich.. March 23, 1881.

Sundry Questions.—I was delighted with the Monthly BEE JOURNAL, but the Weekly is far more beneficial. It seemed so long to wait from one month to another, and even now I eagerly grasp the Weekly as soon as it comes, in the expectation of receiving something new every week. Last fall I had two colonies, but one of them is now dead. How can I clear the combs of dead bees? Will the combs do to put another colony into? My colonies had plenty of honey last fall. I often see it advised to put the hives within a few inches of the ground, but when a swarm gets away (as one of mine did) they often get into a hollow tree, a good height from the ground—Do they not in this act out their instinct? The one I lost went towards the "bush," not far away. This winter 2 men found a swarm in a tree, in that "bush;" they cut it down, and obtained 2 pails of honey from it. I suppose them to have been my bees. It is said that bees never do well on the north side of a sheet of water. I am situated north of Lake Simcoe, and if that is true I shall not succeed. Is that theory correct?
E. MOORE.
Barrie, Ont., March 14, 1881.

[Your first question is answered in the Weekly BEE JOURNAL of the 16th inst. To the second we answer, yes. The instinct governing a swarm of bees prompts them to fly up to the opening in a tree, so long as the opening will not come down to them. As a rule, bees do not thrive so well on the north side of large sheets of water. We suppose it is attributable to the fact that the heaviest honey flows are during the prevalence of the sultry southern winds of summer, enabling the bees to fly to the honey source direct from the hives, by following up the scent. If on the north side, the bees have to search for the nectar from the time they leave the hive, and face the wind when returning heavy laden.—ED.]

Bees Short of Stores.—Many bees have died here this winter, from being unprotected from the cold and being short of stores. IRA DAVIS.
Glass River, Mich., March 22, 1881.

Good Results.—I commenced the spring of 1879 with 6 colonies, increased to 13 and had 400 lbs. of comb honey; I wintered all safely in the cellar and on the summer stands, packed with chaff. Last year I had 31 colonies and obtained 1000 lbs of comb honey, and left the colonies 30 lbs. apiece to winter on. Thanks to the BEE JOURNAL and Cook's "Manual," I have lost no bees. I should be lost without the BEE JOURNAL.
H. A. SWIFT.
Eaton Rapids, Mich.

Bees in good Condition.—Bees have suffered much this winter. Some bee-keepers have lost all; others ½ to ⅓. All but me are using box hives. I started in the spring of 1880 with 8 colonies, and obtained 800 lbs. of comb honey and 165 lbs. of extracted, besides increasing to 20. I wintered on the summer stands, in a close shed, open to the south; I packed straw around the hives, and fine-cut straw in the caps, about 5 inches thick. I had 3 sticks under the quilt. I examined them on Jan. 29, and found them strong and heavy; most of them have brood. I think they will come out in good condition in the spring. I like the Weekly very much; it was too long to wait for the Monthly.
Wisner, Mich. J. P. PHELPS, JR.

Life in the Midst of Death.—All around me bees have died. Many have lost all; others, one-half or two-thirds. After the storm in November I put 63 colonies into my cellar; most of them in the American hive. On March 15th I took them out, all alive but 2, and they were queenless last fall. They were all dry, with no signs of dysentery. Last summer I had 5 or 6 swarms, which I returned to the parent hive after cutting out the queen cells. Every 5 or 6 days they would swarm out without any queen cell in the hive. They did that 5 or 6 times each; I put them back each time, and they gathered a fair surplus of honey. What was the cause of such action? L. W. HARMON.
S. Yorkshire, N. Y.. March 17, 1881.

[They were badly imbued with the swarming fever, which sometimes is as unaccountable as are some cases of abnormal swarming.—ED.]

Equal Loss In-Doors and Out.—The past winter has been a very hard one on bees, and our losses will come very near 25 per cent. However, we have enough left for seed, and will show them how quickly we can recover our losses. The percentage of losses is about equal indoors and out. It seems useless to speculate as to causes—we might as well lay it to the winter as anything. "Facts are stubborn things," and theories—well, the bee-keeper that is not chock full of theory is either a very matter-of-fact person, or has not read the papers. I was among the number who felt very reluctant to part with the old AMERICAN BEE JOURNAL, but I must confess the new is so far superior, I am glad the change is made, and wish you all success. C. S. BURT.
Brecksville, O., March 21, 1881.

Why the Wire-Cloth Inside?—Our bees are happy—no losses worth mentioning. In the issue of March 9th, page 78, 4th column, in answer to W. R. Young, in speaking of boring the Inch auger-hole in each end of the hive, why is the wire-cloth necessary, if the holes can be plugged when not needed? I should with my experience, for I use them, not put wire-cloth over the holes. I am thankful for the Weekly—it is good.
R. C. TAYLOR.
Wilmington, N. C., March 16, 1881.

[During the hottest weather we frequently have cool nights, caused by excessive dews, when spiders and other insects take advantage of these holes to effect an entrance to the inside of the hive because of the heat; again, the moths gain easy access to the combs through these holes if not protected by wire-cloth, as they are never so well guarded by the bees as the entrances.—ED.]

Fresh and Frequent News.—I commenced last season with 19 colonies in Langstroth hives and increased to 28 by natural swarming. The season was very poor here; there was plenty of bloom but it seemed to contain no nectar. I obtained about 50 lbs. of comb honey but no extracted. I had to feed considerable in the fall. Winter commenced so early that I was unprepared. I packed 18 colonies in chaff; the rest were unprotected, and I express it mildly when I say that I was uneasy about them. Feb. 26 was a warm day, and the bees had their first really good flight since last Nov. I improved the opportunity to examine them and found 7 dead, 3 very weak, and the rest in fair condition; 4 of those dead were packed, 3 unprotected. It has been a hard winter on bees here, and winter is not over yet. Comb honey is all that is in demand here, but I intend to create a demand for extracted, if any Italians are left to gather it. I hope the JOURNAL will keep on agitating the adulteration question until there is something done. It is needless to say that I am pleased with the Weekly, it is so nice to get it fresh every week. I never lay it down until I have read it through.
N. W. WILLIAMS.
North Uniontown, O., Feb. 28., 1881.

A Word to Bee-Keepers.—Snow to the tops of the hives, but the "blizzard" has moved on, or else the snow business has "played out," after falling continuously for 33 hours. We have lost bees from the middle of February until date, and will not be able to ascertain how many until the snow leaves. We had a few mild days which we improved doubling up weak colonies. As soon as the weather is suitable, we shall try to make every bee do its very best—every one must count. We do not consider the cold winter our worst enemy, however, but glucose. It has deprived bee-keepers of more money than anything else; especially that mixture labeled "Vermont maple syrup." The honey crop last season was below an average, yet "honey is of slow sale." Can it be possible that the purest sweet under the heavens goes begging for a market, while millions of gallons of starch, impregnated with sulphuric and nitric acids, and sweetened with New Orleans molasses, finds ready sale? Bee papers are read principally by bee-keepers, who are all posted with reference to glucose, but the outside world is not. Bee-keepers, one and all, buckle on your armor, and endeavor to inform the masses what pure honey is, both by talking and writing for local papers everywhere. In this way, and in no other, can they be informed. Mrs. L. Harrison.
Peoria, Ill., March 21, 1881.

[Mrs. Harrison has struck the key-note in solving the whole problem; the people must be awakened to the frauds being practiced upon them, then with an irresistible impulse they will demand laws at the hands of Congress to stop the outrages. Meantime, we know of no one who wields an abler pen than does Mrs. Harrison, nor a better field for its local use than hers, with its score of papers.—Ed.]

Foul Brood and its Causes.—I have for years been of the opinion that bee-keepers generally were mistaken as to the cause of foul brood. I have just read an article in the Weekly Bee Journal, by H. L. Jeffrey, of Woodbury, Conn., that expresses my views on that subject so fully, that I want to call the attention of the fraternity to it. Believing as I do, that the practical suggestions he has made are of the utmost importance, and if heeded, we will hear but few, if any complaints in the future, about "foul brood." Read this article; it is found on the 1st page of the number for March 16.
I. P. Wilson.
Burlington, Iowa, March 18, 1881.

Red Clover Italians.—I inclose the subscription for my welcome weekly visitor—the American Bee Journal. My bees are in good condition. I fed them plenty of coffee A sugar syrup, last fall, and then put them up in chaff. I only lost one colony, which was shaded with a large arba vita tree about 3 o'clock in the afternoon. This weakened the colony. My bees are all Italians. I have purchased queens from different breeders, but my best colonies are bred from queens obtained from my neighbor, Mr. J. A. Bucklew; they were bred from his red-clover queens and are the best workers I ever saw. The queens are very prolific. Success to the Weekly Bee Journal.
Thomas Wolfe.
Franklin, O., March 19, 1881.

The Cause of Losses in Winter.—Bees as far as I can learn, in this section of Ohio, are nearly all dead. Our most extensive bee-keeper has but 18 colonies left out of 80; all were well protected by chaff. Another lost all—50 colonies. Others have lost all but 1 or 2. I have saved nearly ½, although some were not in as good condition to winter as they should have been; that is, they had old queens and consequently less bees that were strong and vigorous for so long and severe a winter. Why so many bees died in winter I do not know; yet I am satisfied that it is not all caused by the cold. If bees were in first-rate condition for winter—that is the bees themselves—and then perfectly protected, the loss would be small; but without this condition, protection is only a partial remedy in such winters as this where bees have been confined 114 days as ours have been. Although last season was a poor one for surplus, I obtained my share and could make money, even in as poor a year as that, and if this season shall prove a good one, I want to see what I can do, as there has not been a good season since I have been in the business. The price of honey in frames is the same as last fall, but there is plenty of honey in the market at from 10 to 15 cts.; it is from hives where bees have died, and in some cases I find the honey is sour.
P. R. Hunt.
Plattsville, Ohio, March 16, 1881.

Bees Tried to their Utmost Endurance.—My bees are doing well considering circumstances. I have some in chaff hives and some in single-wall hives, packed with chaff, on the summer stands. Those in chaff hives are quiet and dry inside, while those in the Langstroth hives are damp, and the bees are uneasy; they cannot endure it much longer without a flight. It is now 133 days since they have been confined to their hives. There are but few bees in this country, and they are nearly all kept by farmers, and are put away in the fall in a kind of "live if you will, or die if you must" fashion, and most of them will be dead if this weather continues much longer. We are having another "blizzard" to-day; wind, snow and sleet, with 3 feet of old snow on the ground, and it has been snowing for 12 hours. This is the fourth time the railroads have been blockaded this winter. Does it ever get warm enough for bees to fly with snow on the ground? The snow is 4 feet deep in my bee yard. We are very much pleased with the Bee Journal since it became a weekly. We could hardly get along without it.
D. S. Burbank.
Reinbeck, Iowa, March 11, 1881.

[Bees frequently have their winter flight while the ground is covered with snow. Straw or hay should be scattered over the surface for the bees to alight on, in case they become weak or chilled. —Ed.]

My Report to Date— Is one colony dead out of 6 wintered in cellar. I put them out for a flight on March 12. I think they are all right. The one, I think, had too few young bees; it had been queenless for about 2 months, when I gave them a Cyprian queen late last fall. C. A. Stevens.
Quebec, Canada, March 19, 1881.

Homer Redivivus.—

I've read the Weekly Journal through—
The advertisements, I read those, too
It is just exactly what I want,
For it is now the best extant;
And after having such a freeze,
I'll tell you something about my bees:
I have in cellar forty "stands,"
(A part of them have golden bands):
Out-of-doors I had forty-four,
But some have died—I think a score;
The bees in-doors are doing well,
While those left out have gone to—"That
bourne from whence no traveler returns."

Bigelow Mills, Ind. Azariah Williams.

Bees in Northern Kentucky.—Here ¾ of the bees died of dysentery, and perhaps a few starved. About the middle of Nov. I fed some of my bees, and packed them, in fair condition for winter. When the cold weather commenced so suddenly I thought I would wait for a warm day to pack the rest, but it has not yet come; the ground is frozen and it is snowing to-night. From 40 colonies in Nov. I have at the present 21 left. The 14 colonies that I fed and packed are all alive, and all but one colony are in good condition; all have brood since the middle of Jan. My 6 colonies of Italians gathered more fall honey than all my blacks, but ceased breeding earlier in the fall and commenced later this winter. But I like them to rear queens from, if nothing else, on account of their being readily seen when first emerged from the cell. The losses in my neighborhood are about as follows: A., 3 lost out of 8 colonies; B., 18 from 24; C., 14 from 16; D., 17 from 34, and many have lost all. But I have not lost all hopes yet. Success to the Weekly Bee Journal. A. W. Stith.
Dividing Ridge, Ky., March 3, 1881.

Feeding and Extracting.—1. Will rye-meal in syrup, to feed bees in early spring, answer the same purpose as when fed in candy?

2. Can an extractor be used to remove honey from pieces of comb as they come out of gum hives when taking up or transferring? I like the Bee Journal very much, and think it is invaluable.
Mrs. O. F. Dean.
Carthage, N. Y., March 21, 1881.

[1. Yes; but we prefer giving it separately, using for that purpose unbolted rye-meal, and putting it in pans at a short distance from the hives. If pollen is needed the bees will carry it in, even though honey or syrup be exposed in close proximity.

2. Yes; all of the modern extractors will clean the pieces nicely.—Ed.]

Melange.—1. When bees are working in the surplus boxes, does it do any harm to remove a frame of sealed brood from the brood chamber once in two weeks, to strengthen nuclei, and put in a sheet of comb foundation?

2. When surplus honey is wanted instead of increase, is it not best to prevent swarming by giving plenty of room, and then make up the increase between basswood bloom and buckwheat, by stimulating the queens?

3. How many feet to the pound should comb foundation be for brood chamber and surplus boxes?

4. When and where was the honey bee first mentioned in ancient history, and who was the first that kept them for pecuniary profit?

5. In preparing bees for winter, how many frames with two-thirds empty combs would be required for a strong colony to cluster on? I gave 6 with 2 full frames of honey,* and the bees starved. E. S. M.
Butternut Ridge, March 21, 1881.

[The above letter was unaccompanied with the writer's name, and would have been consigned to the waste basket, had the questions not been of a general nature. Courtesy requires that the name should accompany the communication, though not necessarily for publication.

1. It does harm, in that it interferes with the reinforcement of the workers as they die from age and casualties.

2. Many successful apiarists pursue the course suggested.

3. For brood frames, 4½ to 5 feet; for surplus boxes, if used as small starters, the same weight will answer; if full size, 10 to 12 feet.

4. Honey and bees are frequently referred to in the Old Testament. Canaan is mentioned as a land flowing with milk and honey, and when Abraham's sons went to Egypt to buy corn, they took honey with them as a present to the Egyptian ruler—Gen. 43: 11. The honey bee was extolled in verse and prose by Homer, Herodotus, Aristotle, Cato, Virgil, Pliny, Columella and other ancient writers. A more extended reference to this subject will be found on pages 5-8, of the pamphlet "Honey, as Food and Medicine." The last clause of the question we cannot answer.

5. Two are enough; three are a great abundance.—Ed.]

Wintering in a Cave.—I have wintered in a cave for 4 years, with very small loss; some years none. The cave cannot be too warm, if it is perfectly dry; then there is no mildew on the combs. My bees come out stronger in the spring than when I put them away in the fall. If damp, the loss will be great and all the combs nearly spoiled. D. S. Way.
Urbana, Iowa, March 13, 1881.

Bees Are Scarce.—The bees in this section are scarce; over one-half of them have died during the past severe winter. S. J. Davis.
Goldsmith, Ind., March 14, 1881.

Late Spring.—Spring was late in coming, but my bees are doing well—all breeding nicely, having already reared one litter of brood. The maple bloom is about over now. Peach buds are opening slowly. I look for a good honey season this year. S. C. Dodge.
Chattanooga, Tenn., March 18, 1881.

One Half of the Bees Dead.—About ½ of the bees in this section, as far as far as heard from, are dead. One man reports a loss of 149 out of 150 colonies, but they had no care whatever.
O. B. Ranney.
Kalamazoo, Mich., March 19, 1881.

Bees Carrying in Pollen.—My bees are carrying in pollen from soft maples to-day. I have lost 3 weak colonies out of 52, and I do not expect to lose any more. I left some on the summer stands unprotected, as an experiment, but they starved with plenty of honey in the hives; it was too cold for them to reach it. John Boerstler.
Gilead, Ill., March 15, 1881.

Purifying Wax.—Will some of the numerous readers of the Bee Journal give us the best mode of cleansing and purifying wax? I received a sample of comb foundation from Messrs. Dadant & Son which is really beautiful, it is so clear and yellow. A few hints would be of great value. I like the Weekly Bee Journal. D. V. Beacock.
Brockville, Canada, March 22, 1881.

[Perhaps Messrs. Dadant & Son, and others, will give their methods of purifying and cleansing beeswax.—Ed.]

Wintering in Box Hives.—Bees in this vicinity, kept in box hives, have done well, and there seems to be no winter-killing or loss; but those in Langstroth and other movable comb hives, have suffered at a rate of from one-tenth to one-third. I have lost 3 out of 8; those lost were in Langstroth hives; 2 Langstroths kept well; my other 3 were not movable comb. Bees here are carrying in pollen in large quantities from the silver poplar and water maple, and looking healthy and in fine condition. At first I did not like the change, but now I am delighted with the Weekly Journal. R. A. Mollyneaux.
New Richmond, Ohio, Mar. 18, 1881.

Chaff Packing Triumphant.—I have just examined my bees after their long winter's nap, and I feel like throwing up my hat and whistling big, for I am "out of the woods" for this winter. I have not lost a colony and never saw bees in better condition at this season. I feel very jubilant over my success, for they were not in the best condition for wintering. Our winter has been long and severe; the thermometer has stood as low as 25° below zero. My bees had no good flight from Nov. till Feb. Chaff hives and chaff packing did the business. I winter on the summer stands, and from observation and experience I have about come to the conclusion that, with proper protection, that is the way to winter bees. At some future time I will give a detailed account of how I packed my bees, and the material used, (for I had them packed in different ways) and my experience with the different kinds of packing. I hope that bee-keepers will report their last winter's experience and the manner of wintering minutely, and the result by so doing. I think that we will develop something that will be of lasting benefit to us all, in the way of successfully wintering bees. The Weekly Bee Journal is a splendid thing for bee-keepers, and that it may be just as good a thing for its publisher is my earnest desire.
J. W. Henderson.
Burlington, Kan., March 15, 1881.

Portable Sheds for Winter.—I have 21 colonies of bees in portable sheds, with shingle roof (3 in each shed), packed in chaff and wheat straw. They are all right. I left 6 colonies on summer stands without protection and lost 3 of them; another is quite weak. More than ⅔ of the bees in this neighborhood are dead. P. S. VanRensselaer.
LaCarne, O., March 21, 1881.

Local Convention Directory.

1881. *Time and Place of Meeting.*

April 2—S. W. Iowa, at Corning, Iowa.
5—Central Kentucky, at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
7—N. W. Ohio, at Delta, Ohio.
13—N. W. Missouri, at St. Joseph, Mo.
D. G. Parker, Pres., St. Joseph, Mo.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
12, 13—Texas Bee-Keepers' Association, at McKinney, Collin Co., Texas.
W. R. Howard, Sec., Kingston, Hunt Co., Tex.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 18—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
Bee-Keepers' Magazine (A.J.King)	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T.G.Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 18@20c. for strictly choice white comb in 1 and 2 lb. boxes; at 14@16c. for fair to good in large packages, and at 10@12c. for common dark-colored and broken lots. Extracted, 8@10c.

BEESWAX.—Choice yellow, 20@23c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 14@16c.; fair do., 14@16c.; dark do., 11@12; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 80@85c.

BEESWAX.—Prime quality, 20@23c.

CINCINNATI.

HONEY.—The market for extracted clover honey is good, at 8@10c. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@22c. C. F. Muth.

SAN FRANCISCO.

HONEY.—The "Vigilant" takes 600 cases to Liverpool. There is a slightly improved feeling consequent upon a little more inquiry, but prices show no material appreciation. Discouraging reports are received from the southern part of the State, as to the prospects of the coming crop, but other sections give promise of an abundant yield. With a good supply yet on the market, prices are not apt to be buoyant until the anticipated failure is more fully settled. We quote white comb, 12@13c.; dark to good, 9@11c. Extracted, choice to extra white, 5½@6½c.; dark and candied, 5@5½c.

BEESWAX—22@22½c., as to color.

Stearns & Smith, 423 Front Street.
San Francisco, Cal., March 11, 1881.

SPECIAL NOTICES.

☞ Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

☞ "What is the meaning of 'Dec. 81' after my name on the direction-label of my paper?" This question has been asked by several, and to save answering each one, let us here say: It means that you have paid for the full year, or until "Dec. 31, 1881." "June 81" means that the first half of the year is paid for, up to "July 1st." Any other month, the same.

☞ We will send sample copies to any who feel disposed to make up clubs for 1881. There are persons keeping bees in every neighborhood who would be benefitted by reading the Journal, and by using a little of the personal influence possessed by almost every one, a club can be gotten up in every neighborhood in America. Farmers have had large crops, high prices, and a good demand for all the products of the farm, therefore can well afford to add the Bee Journal to their list of papers for 1881.

Hundreds of Men, Women and Children rescued from beds of pain, sickness and almost death and made strong and hearty by Parker's Ginger Tonic are the best evidences in the world of its sterling worth. You can find these in every community.—Post. See advertisement. 9w4t

☞ When changing a postoffice address, mention the *old* address as well as the new one.

☞ We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

☞ The Volume of the Bee Journal for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

☞ Notices and advertisements intended for the Weekly Bee Journal must reach this office by Friday of the week previous.

☞ Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

Ladies who Appreciate Elegance and purity are using Parker's Hair Balsam. It is the best article sold for restoring gray hair to its original color and beauty.

☞ The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

Premiums.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the Journal for a year *free*. Do not forget that it will pay to devote a few hours to the Bee Journal.

☞ Sample copies of the Weekly Bee Journal will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

☞ Any one desiring to get a copy of the Constitution and By-Laws of the National Society, can do so by sending a stamp to this office to pay postage. If they desire to become members, a fee of $1.00 should accompany it, and the name will be duly recorded. This notice is given at the request of the Executive Committee.

☞ It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

☞ At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

☞ We have filled orders for quite a number of Binders for the Weekly Bee Journal. We put the price low, 30 per cent. less than any one else could afford to sell them, for we get them by the quantity at wholesale and sell them at just enough to cover the cost and postage, the latter being 21 to 23 cents, on each. We do this to induce as many as possible to get them, and preserve their Weekly numbers. They are exceedingly convenient; the Journal being always bound and handy for reference. The directions for binding are sent with each one.

Wire Nails.

There being considerable demand for wire nails, I have concluded to carry a stock of them, and can fill orders for any quantity promptly. For nailing Sections, Cases, Frames, Racks, Crates, &c., they have become quite popular.

The entire length of the nail being the same thickness, they never loosen as ordinary iron nails will, and are not as liable to bend or break.

From the assortment of lengths given in the table below, any kind of nailing may be done with these nails, even to making large boxes.

⅜ inch long, wire No. 20, per lb		34c.
½ "	" 19, "	25c.
⅝ "	" 18, "	22c.
¾ "	" 18, "	20c.
⅞ "	" 17, "	18c.
1 "	" 17, "	18c.
1⅛ "	" 16, "	16c.
1¼ "	" 16, "	16c.
1½ "	" 16, "	16c.
2 "	" 15, "	14c.

If wanted by mail add 18 cents per lb. for postage.

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Books for Bee-Keepers.

Cook's Manual of the Apiary.—Entirely re-written, greatly enlarged and elegantly illustrated, and is fully up with the times on every conceivable subject that interests the apiarist. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, **$1.25**; paper covers, **$1.00**, postpaid. Per dozen, by express, cloth, $12.; paper, $9.50.

Quinby's New Bee-Keeping, by L. C. Root.—The author has treated the subject of bee-keeping in a manner that cannot fail to interest all. Its style is plain and forcible, making all its readers sensible of the fact that the author is really the master of the subject. Price, **$1.50**.

Novice's A B C of Bee-Culture, by A. I. Root. This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, **$1.25**; paper, **$1.00**.

King's Bee-Keepers' Text-Book, by A. J King.—This edition is revised and brought down to the present time. Cloth, **$1.00**; paper, **75c**.

Langstroth on the Hive and Honey Bee. This is a standard scientific work. Price, **$2.00**.

Blessed Bees, by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, **$1.00**.

Bee-Culture; or Successful Management of the Apiary, by Thomas G. Newman.—This pamphlet embraces the following subjects: The Location of the Apiary—Honey Plants—Queen Rearing—Feeding—Swarming—Dividing—Transferring—Italianizing—Introducing Queens—Extracting—Quieting and Handling Bees—The Newest Method of Preparing Honey for Market, etc. It is published in **English and German.** Price for either edition, **40 cents**, postpaid, or $3.00 per dozen.

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The Hive I Use—Being a description of the hive used by G. M. Doolittle. Price, **5c**.

Extracted Honey; Harvesting, Handling and Marketing.—A 24-page pamphlet, by Ch. & C. P. Dadant, Hamilton, Ill. This gives in detail the methods and management adopted in their apiary. It contains many good and useful hints, and is well worth the price—**15c**.

Practical Hints to Bee-Keepers, by Chas. F. Muth, Cincinnati, Ohio; 32 pages. This pamphlet gives Mr. Muth's views on the management of bees, and embraces several of his essays given at Conventions, etc. It will be read with interest by beginners as well as those more advanced in the science of bee-culture. Price, **10c**.

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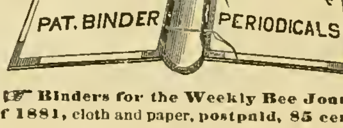

☞ **Binders for the Weekly Bee Journal, of 1881**, cloth and paper, **postpaid, 85 cents.**

We can furnish Emerson's Binders, gilt lettered on the back, for American Bee Journal for **1890**, at the following prices, postage paid:

Cloth and paper, each	50c.
Leather and cloth	75c.

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THE AMERICAN BEE JOURNAL

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A line will contain about **eight words**; fourteen lines will occupy one inch of space.

One to three weeks, each insertion,	20	cts. per line.
Four " or more" "	18	" "
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Thirteen " " " "	12	" "
Twenty-six " " " "	10	" "
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Advertisements withdrawn before the expiration of the contract, will be charged the full rate for the time the advertisement is inserted.

Transient Advertisements payable in advance.—Yearly Contracts payable quarterly, in advance.

THE AMERICAN BEE JOURNAL is the oldest Bee Paper in America, and has a large circulation in every State, Territory and Province, among farmers, mechanics, professional and business men, and is, therefore the best advertising medium for reliable dealers. Cases of *real* imposition will be exposed.

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☞ We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

* * *

☞ The North Western Wisconsin Bee-keepers Association will meet at Germania Hall, LaCrosse, Wis., on Tuesday, May 10, at 10 a. m. All interested in bee-keeping are requested to be present. L. H. PAMMEL, JR., *Sec.*

* * *

☞ The next meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held at H. W. Lee's, 2 miles n.w. of Pecatonica, Winnebago county, Ills., on the 17th of May, 1881. J. STEWART, *Sec.*

* * *

☞ On account of unfavorable weather the convention at Monroe Centre, Ill., met on Feb. 8, and there being but few present, adjourned to the same place on March 29, 1881.
A. RICE, *Pres.*

* * *

☞ The Texas Bee-Keepers' Association will hold their third annual Convention at Judge W. H. Andrews' apiary, in McKinney, Collin Co., Texas, on the 12th and 13th days of May, 1881.
then. WM. R. HOWARD, *Sec.*,
tected, Kingston, Hunt Co., Texas.

☞ The latest song and chorus is entitled "The Flower of Tennessee," by James E. Stewart. This song has one of the most beautiful melodies ever published, and is sung with immense success by the prominent Minstrel Troupes throughout the country. The music is very simple and can be played on the Organ or Piano. Sent to any address upon receipt of 35 cts. Address,
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Warranted Italian Queens, $1.00; Tested Italian Queens, $2.00; Cyprian Queens, $2.00; Tested Cyprian Queens, $4.00; 1 frame Nucleus, Italians, $4.00; 1 frame Nucleus, Cyprians, $5.00; Colony of Italians, 8 frames, $8.00; Colony of Cyprians, 8 frames, $10.00. Wax worked 10c. per lb. Pure Comb Foundation, on Dunham Machine, 25 lbs. or over, 35c. per lb. ☞ Send for Circular. 1wly

ITALIANS AND HYBRIDS—30 or 40 Colonies for sale low. Queens and Nuclei after May 15th. Address, R. M. ARGO,
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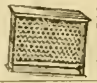

high side-walls, 4 to 16 square feet to the pound. Circular and samples free.
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Tested Queens, each	$2 50
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3 " " " " "	6 00
4 " " " " "	6 50
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" " in lots of 5, each	10 00
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I will use all possible care in preparing the above for shipment, but cannot guarantee safe arrival, except on queens any distance less than 1,000 miles.

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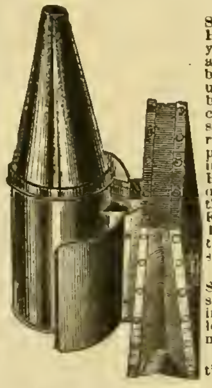

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The Large and Extra Standard have extra wide shields to prevent burning the fingers and bellows. A real improvement.

Send postal card for testimonials.

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CORRESPONDENCE.

Interesting Letter from Singapore.

The following letter from Mr. Benton, from Singapore, will be read with interest. That city is a great seaport near the Islands of Borneo and Java. Mr. Benton's search after those large bees —*Apis dorsata*—is a herculean task, and his trip thither will be well worth a place in history. Here is the letter:

FRIEND JONES: When in Ceylon I plunged into the jungles, first in this direction and then in that, and followed out every clue that I could obtain; yet although on every side I was told there existed "a large bee," which the natives call *bambera*, it was not until just before I came away that I ascertained anything reliable regarding the habits and whereabouts of this wonderful insect, which I feel safe in saying is the long talked of *Apis dorsata* itself; though it was too late for me to get to the places where I could see this bee and still reach this steamer. As I return to Ceylon, and am likely to see *Apis dorsata* elsewhere also, I comforted myself regarding the disappointment experienced at not seeing this *bambera* before my re-embarkation.

I will speak in the order of their size, of the bees found in Ceylon, giving the Cingalese names used there.

Kana Mee Meso belongs to the *Trigonæ*, and therefore is not a true honey bee, although it gathers pollen and some honey, and lives in swarms with a queen. In a jungle a few miles from Kaltura, on the southwest coast of Ceylon, I found a small bee which contained a nest of these minute, stingless bees. A tube about ¾ of an inch in diameter and a foot long, composed of propolis and particles of wood, hung from the hole of the tree, and through this tube all the bees entered. It seems this is a means of keeping out larger insects. The tree was cut and the nest secured. The cells are built in irregular bunches like those made by common bumble bees. Those cells containing brood were about the size of a grain of rice, while the honey and pollen cells were as large as the smaller cells made by bumble bees. The workers are somewhat less than 3-16 of an inch long, (about 5-32) have large heads, and very small abdomens, the latter seeming blunt, and abbreviated, so to speak. These bees fly swiftly, and look odd enough as they come in loaded with minute pellets of pollen, which is packed on their hind legs as with other bees. They are black.

The queen is large, her abdomen being so great as to dwarf in appearance all other parts of her body, and so disable her as far as flying and rapid movements are concerned. Of course there can be no practical value in these bees, but I tucked the nest in a box about 6 inches square and 2 deep, or rather a part of the brood and honey, and brought the swarm along. They have been fixing up their new home quite bravely.

Daudual-Meso is a small bee which I have not seen, but which I do not believe is likely to prove valuable, since it is so small. Its comb is composed of regular hexagonal wax cells, like all comb of *Apis*, but there are 81 cells to the square inch. I have in my possession a small piece.

Mee Meso are the Cingalese words signifying "honey bee,,' and this is the bee from which, aside from *bambera*, most of the honey and wax come.

Bambera, all accounts agree, exists plentifully in the jungles of Ceylon, but I found just before I came away, only rarely near the seashore, I failed to find it within 10 miles of the coast. I was glad to get accounts from persons who have seen these bees and their trees, and have measured the lengths of their combs; observing gentlemen, too, whose word can be relied upon. They say these bees, which I feel sure are of the species *Apis dorsata*, attach their combs to the branches of trees, usually some lofty trees of the primitive forest, and a gentleman who has often seen them, says they build combs 8 feet long. Another once measured a comb which he found to be 6 feet long. The first mentioned gentleman says he has seen 30 natives with earthen pots each receive a load from one *bambera* bee tree, and has seen a swarm of these bees nearly a half mile long. When I visited the Government Museum in order to obtain information as to whether they knew anything of these bees and where they were to be found, the natives having only succeeded in finding *deborah*, (a large hornet) with its nest, for me. I was at once taken by one of the directors to this gentleman, as the one from whom the most information could be obtained.

The Cyprian and Palestine bees I have with me are doing finely. Those left in Ceylon will serve to introduce the species *A. melifica*, and will establish in that wonderful, productive Island an industry that I feel sure will thrive there and be a source of revenue to the inhabitants and the government.

Upon my return I have formed the plan of taking with me for introduction to Cyprus a lot of cocoanut palm trees, some mango and bread-fruit seeds or trees, and a species of paw-paw found in Ceylon. As the date-palm, the orange, the lemon, the fig, the banana and the pomegranate are already growing in Cyprus, I believe these new fruits will thrive and find favor. Financially, of course, it is an experiment, yet I believe it promises well; at any rate it will not cost much to try it.

Except this paw-paw, I failed to find any fruit or grain that is likely to thrive in as cold a climate as the central parts of North America. Cinnamon, coffee, tea, betel nuts, precious stones and cocoanuts and oil are, with cinchona bark, the principal exports of Ceylon. I talked with various exporters, but all had their agents in N. Y. and Canada, and desired no change. None of them would sell, of course, direct to the firm, when possessing an agent in America.

Upon my return I will see what further can be ascertained as to "out-of-the-way products." It is hard to get any prices, and would in most instances be difficult to obtain a quantity worth while to ship.

From Arabia, coffee, gums, perfumes and pearls come. At Aden I was told that the best Mocha coffee could be got for one shilling (or 24 cts.) per lb. In large quantities I think it can be got still cheaper. I should think precious stones (sapphire, jasper, &c.,) gums, coffee, cocoanut oil, cinnamon oil and pearl would pay best, perhaps also ivory and ostrich feathers. At Aden I found some large wheat, but kinds were mixed, or else the variety is not a fixed sort. This portion of the world produces little or no grain besides rice.

I have obtained seeds of a number of flowering plants and trees, some of which I know yield honey, and others that look as though they might were there bees to gather it. We expect to reach Singapore to-morrow forenoon. I will take the first steamer for Batavia, which will likely leave in a day or so.

FRANK BENTON.

For the American Bee Journal.

Cause of Bee Cholera or Dysentery.

G. M. DOOLITTLE.

I have noticed in several articles a statement quite similar to this, which is taken from Mr. James Heddon's article in the February number of the *Bee-Keepers' Instructor*: "Every bee-keeper of experience who lives in our northern latitudes has witnessed enough to know that cold or confinement, or both, do not *cause* bee cholera or dysentery." Now, I claim the title "bee-keeper" (whether of experience or not I dare not say), and live in the "northern latitudes," yet I cannot be one of the number above styled as "*every*," for I believe confinement *does cause* the so-called dysentery, and hope to so clearly show it in this article that you will so acknowledge also.

First. I once produced dysentery (I do not believe this is a disease, but merely an accumulation of the feces) in its worst form, the latter part of June, by confining a lot of bees to the hive for 10 days. A frame of brood was taken from the hive with the adhering bees, and also a frame of honey with the bees which were on that, and placed in an empty hive to form a nucleus, the bees being confined to the hive for three or four days, when the entrance was opened in the evening. Early the next morning there came on a cold storm and bad weather ensued, so the bees could not fly for six more days. On the tenth day the sun came out, and the bees from these nuclei (7 in number) were so loaded that they could scarcely fly. An examination revealed that they had eaten on an average about 2 lbs. of honey in each nucleus. Nuclei made but a few days before, which had flown 2 or 3 times before the bad weather, were not eager to fly, and showed no signs of dysentery, neither did our full colonies; nor had they eaten an undue amount of honey. The trouble here was evidently confinement, which caused the bees to worry and thereby consume an undue quantity of food, thus producing a necessity to void the excrement, or dysentery, if you please to call it so.

Again, in the fall of 1878 our bees were prepared for winter in the best possible shape, and had nothing but white honey in their hives, said honey being collected the early part of July, for we had no fall honey. Sixty colonies were put in the cellar, and 90 left on the summer stands, two-thirds of which were packed with chaff and straw. Winter set in early, and the weather was so cold that no bees could fly with safety for nearly 4½ months. At the end of 4 months some of our best colonies were dead, with the combs and hives soiled badly, while others sitting right alongside of them were in as fine condition as could be, and remained thus, coming out strong in the spring. If it was "bacteria" in the honey, why did not all die, as all had the same stores? We also placed 60 colonies from the same yard in the cellar on the 1st of November, and did not set them out till May 1st, and 55 of the 60 came out in good condition, while we only saved 15 out of the 90 out-doors—75 dying with the dysentery, so-called. If it was infection of the honey, why did not those in the cellar die also, and especially as they stood 6 month's confinement? The past winter has shown the same results, only our loss is but about 10 per cent. so far.

Now I will give my conclusion. From practical experience I have been forced to the conclusion that confinement is the cause of all wintering troubles, for surely, bees do not die from what they eat in July weather when they can fly. But confine them to the hive with July weather, and they cannot live one-third as long as in cool or cold weather. That confinement is the result whenever the mercury falls below 40° to 45° in the shade, and as surely as the mercury stays below this for 60 days in succession, bees not properly protected will suffer therefrom, and if properly protected, 120 days will more or less hurt those on the summer stands; that 180 days' confinement in a good cellar can be endured by the bees as well as 120 days in well-protected hives, or 60 days with no protection on the summer stands; that if 60 days more of confinement is added in either case, not 1 colony in 10 can survive, no matter what the food is nor the surrounding conditions. Now, we come to our last point, which is, that instead of the trouble being in the kind of honey eaten thus producing dysentery, the trouble is in the quantity eaten, and as the quantity consumed is to the number of days the bees are confined, so is their length of life shortened or extended. For instance, a fair-sized colony may consume 1½ lbs. of honey per month, and endure confinement without soiling the combs for 6 months; now, if they consume 6 times this amount in 2 months, they must fly at the end of that time or the combs will be soiled very soon thereafter. We often read, "My bees wintered well and consumed but very little honey," while the fact was that their consuming but little honey was the reason they wintered well. Thus we are able to answer the question why one colony dies, and another at the side of it does not. It is because one gets discontented and consumes large quantities of honey, while the other does not.

Now comes the rub: why does one colony get discontented within 1 month after being confined, and another does not under 3 or 4, or in case of cellar wintering, 6 months. Well, I will be candid and say I do not know; but I do not believe the cause is in the honey altogether. One thing Mr. Heddon and myself will agree on I am sure, and that is, if as soon and as often as a colony gets uneasy and goes to eating honey ravenously they could have a day to fly, all would be well, even if such a colony was obliged to fly 3 or 4 times where another did not have to but once.

To keep bees quiet the longest possible time I would recommend: 1st. A good bee cellar in a bank, covered all over with no less than 3 feet of earth, and an even temperature maintained inside at 44° to 45°; 2d. Hives so constructed that chaff could entirely surround the bees to the depth of 4 inches. To sum up, we should winter one-half of our apiary one way and one-half the other, inasmuch as our winters vary so that one winter has come out the best on summer stands, and another the best from the cellar. I will refer to this subject again in the next Weekly BEE JOURNAL.

Borodino, N. Y., March 22, 1881.

For the American Bee Journal.

Extracting Bees.—The New Industry.

H. T. COLLINS.

As the exigencies of the times have created the new industry of "extracting dead bees" from the cells, and as many of the bee-keeping fraternity may want to do so without delay in order to save time, I give my plan, as I think the one suggested by our editor, though good in the main, is apt to break the combs too much. The necessary tools are a small pair of tweezers (such as taxidermists use), a light and sharp darning needle, and last but not least, a shallow tin pan, say one inch deep and 13¾x17¾ inches. Every keeper of 10 or more colonies should have one or more pans—they just fill the bottom of a 10-frame Langstroth hive, and are as handy as a pocket in a shirt. Instead of the pan, a common table waiter will answer. Sitting in a good light, place the pan lengthwise across the lap, and lay the frame across the pan, but parallel with the lap. The use of the pan is to give a convenient rest to the frame, and to hold the dead bees. If you are right-handed, let the top of the frame be towards the right hand, if not, *vice versa*. Holding the tweezers in the hand, which is right (often the left one), grasp the bee and pull it out slowly and gently, and with the motion of the hand towards the top of the frame. As in the natural position, the base of the cell is horizontally the lowest, the above mentioned motion extracts the bee with the least friction. But in some combs they will stick so tight as to break off at the junction of the abdomen, and to prevent this, with the darning needle pierce the thorax as it comes to the edge of the cell, and by its help you can nearly every time drag out the too-tightly lodged bee. A cup of warm water will be convenient in removing the sticky deposit that will often adhere to the end of the tweezers. To the inexperienced, the above may seem to be a slow and tedious way of extracting bees, but a little practice will make one skillful, and if any one has a better way please communicate it promptly, as this new industry promises, from the weekly reports, to be a large and growing one.

Jacksonville, Ill.

For the American Bee Journal.

Separators for Surplus Honey.

JAMES HEDDON.

For the benefit of some who do not as yet understand all my argument against the use of separators I wish to add, that I am well aware that the system of sections within frames hung in a super, is entirely impracticable without the use of separators. I know too that, as Messrs. Greiner Bros. remark, bees take more kindly to wood than to tin or glass, and there is just where the trouble comes, as they sometimes kindly attach the sides of the combs to them. Some seasons, under peculiar circumstances, the loss of honey by the use of separators might, as Greiner Bros. say, be very slight, but in many seasons they will be found to be a serious detriment to the amount of surplus obtained. But why not use a system that does not need them, and is much handier than the super system besides?

I supposed that the younger bee-keepers, who keep posted, knew that many old producers on a more extensive scale never used separators at all, and of that class who did many others are laying them aside. Bees do finish up their combs full better with separators, because as the season draws to a close they are less inclined to start another comb in one of those little compartments, and as long as there is honey coming in they finish with it to keep from *perfect* idleness. I think the unfinished combs are just so much extra. If it is "strange" that I should declare against the use of *all* separators, while still many prominent bee-keepers use them, how dare you, Messrs. G., declare against tin, compared with wood, when you know that tin is the popular material? Galileo said, "The world is round;" all others said, "It is flat," and there being more of the "flats" than Galileos, these "flats" put their greatest scientist behind the prison bars.

Before I close, I wish to call the attention of the readers of this paper to the able article of A. B. Weed, on "Queen and Supply Trade," in the BEE JOURNAL of March 23d. I think all bee-keepers, whether supply-dealers or producers strictly, if posted upon the points therein taken, will say, "Thanks to Mr. Weed."

Dowagiac, Mich., March 26, 1881.

For the American Bee Journal.

Pure Liquid Honey in Glass Jars.

CHAS. F. MUTH.

The above subject is one which has provoked considerable comment, and it appears we are not quite done with it yet. I dare say that there is not a dealer of any note in Cincinnati, by this time, who imagines that my jar honey is anything but pure honey, or who suspects any honey when it comes from my store; and I am just as positive in the statement that there is not a dealer in Cincinnati, having extracted honey from New York or Chicago in store, who does not believe it to be glucosed. There is hardly anybody in our community who suspects the purity of the honey when my label is on the jar. Jar-honey, in general, is not mistrusted any more in our city, unless the jar contains besides the liquid, also a piece of comb honey. Such is the case in Cincinnati, to all appearances, and I am willing to be corrected if wrong.

The subjoined letter from a party in New York, and my answer to them, show an interesting difference in the state of the market for extracted honey in our city and New York, the home of Mr. W. M. Hoge, Wm. Hogue or John Long. To avoid misunderstanding, I may state that Hoge, Hogue or Long, while in New York, was bottling honey for the firm of Thurber & Co. In explanation of the letters following, I may state that the editor of the *Cincinnati Grocer* had been recommending my honey to Messrs. Guernsey & Co., N. Y., who opened correspondence with me, and to me he had recommended them as perhaps the best party to introduce my honey in the New York market. The result was that I sent them 1 gross of 1 lb. jars and 1 gross of ½ lb. tumblers, at cost, on 60 days' time. The honey commenced granulating in the course of a month or more. This fact, and the general mistrust to extracted honey in New York must be taken into consideration to do the following correspondence justice:

New York, March 17, 1881.

Mr. C. F. MUTH—*Dear Sir:* Enclosed please find bill of lading for the honey sent us. We find it totally impossible to sell the goods, as parties here are afraid of glucose, etc. We waited for parties to decide about them, and they concluded not to take them. We are sorry, but such is the case. We have retained one box of each, bottles and tumblers, to pay us for the freight paid on goods here. Yours very respectfully,

GUERNSEY & CO.

To which I replied as follows:

Messrs. GUERNSEY & CO.—*Gents:* Your favor is at hand. I expect the return of my honey with all the charges deducted you feel disposed to make. I had supposed that there were some men in your city with enough sense to determine the difference between honey and glucose. My honey is *strictly pure*, and I will pay you $100 if you will prove that I am wrong. Yours truly,

CHAS. F. MUTH.

Cincinnati, Ohio, March 21, 1881.

[We were shown quite recently a letter received by a prominent dealer in strictly pure honey in this city, from a correspondent in Virginia, who had ordered and received from him a keg of honey. They say: "The keg of honey came to hand on the 25th; you may imagine my chagrin on opening the package and finding the contents *solid*. In its present condition it is of no value to me." Although a dealer, we suppose this was really the first package of *strictly pure* extracted honey he had ever seen, or he would have felt pleasure, instead of chagrin, to find it granulated solid. The truth is, the public have been so much deceived with a spurious article in liquid form, that many do not know the genuine when they see it. A bee-keeper or person perfectly familiar with honey in a northern or central latitude, would require something more convincing than the mere assertion of a respectable grocer that his honey was strictly pure, if not candied or granulated in cool weather.—ED.]

For the American Bee Journal.

How to Separate Swarms.

BRAY & SEACORD.

An experience of 20 years with bees has taught me to wait upon them and not to have them wait upon me; in other words, always have your work ahead of time. Next, to have your bees in strong condition at the time of the first flow of honey. The great mistake of beginners is to aim at too large an increase, either by division or natural swarming. If the season is good, an increase of 3 from each colony is a plenty; if a medium season an increase of one from each colony is enough.

The brood chamber is the mainspring to work upon for a good yield of honey. We allow no queen to live over 3 years, and if not a prolific queen she only lives one year. We allow no brood comb to remain over 3 years in the centre of the hive; by this plan we get fine developed bees, and of longer life.

Our plan of separating swarms of 2 or more, when they come out and cluster together, may be of benefit to some. It is as follows: Make a box 3 feet long (or any size that will fit the frames of your hive), make one entrance to the box for the bees to pass in and out; make a tight cover to fit the box, with cleats on 2 sides, no end cleats; make 3 or 4 division boards; then the box is ready for hiving the bees.

Now take the box and hive the cluster of 2 or more swarms, and as soon as all the bees are in the box, put it in a shady place, and let it remain there until the next morning; then push the box cover lengthwise of the box and you will observe each queen with her colony clustered by themselves; now place the division board between each cluster, push the cover back again over the cluster and hive at pleasure.

The present season is fully 6 weeks ahead of last season; drones were in the air on the 28th of Feb. We keep our colonies in a condition so that the queen can breed up to her full capacity. The Italian queens we received from the BEE JOURNAL apiary last fall, wintered well, and we now have several nuclei started for queen-rearing, as we mean to Italianize all of our bees by the end of the present season. The prospects were never better than now for a booming good year.

At some future time we will give our experience in wintering bees in a cold climate on 4 lbs. 2 ounces of honey per colony, before chaff packing was invented.

If a Syrian queen cross with the black drone, would not this cross produce the Italian bee? Success to the BEE JOURNAL.

Warthan, Cal. March 15, 1881.

[If the Italian bee is a hybrid, and originally produced by mating the black drone with the Syrian queen, then, of course, a like cause will again produce a like effect; but if the Italian bee is a distinct race, then no crossing of other races will produce it as a fixed type.—ED.]

For the American Bee Journal.

Raspberry as a Honey Plant.

D. D. PALMER.

The raspberry can be grown in any land that will produce a crop of corn or potatoes. It furnishes a fine quality of honey, and a delicious fruit, coming immediately after strawberries. Sandy or light soils produce a better flavored fruit but not so much nor as large as clay soils.

The ground should be spaded or ploughed deep, and raked or harrowed thoroughly so as to pulverize it. If you get plants by mail, dip them in water as soon as received and bury the roots in moist shady ground until you are ready to set them out. Plants can be sent by mail with as much certainty of arriving in good condition as if carried personally or sent by express. Handle so as to expose the roots to the sun and wind as little as possible. For garden or field culture plant 2½ or 3 feet apart in the row and the rows 6 feet apart. A convenient implement to use in setting any small plants is called a dibble, made similar to a mason's trowel, and cost me 25 cts. each. Make the holes deep enough to take in the long roots without doubling them up. Spread the roots out like a fan, fill with mellow soil and pack snugly among the roots, if the ground is dry pour in water before filling up, then fill up with dry or moist soil, leaving the surface loose and mellow. If dry weather prevails, remove the top soil and pour in plenty of water; after the water has settled replace the soil. They may be cultivated the same as corn, being careful not to cultivate too deep as some of the roots grow near the surface. Cabbage or other root plants may be planted and cultivated among them the first season. Fruit trees may be planted with them in the row.

There are several ways of training the bushes; some use stakes. This we consider an expensive practice, unless it be for garden planting, when very close planting is required and it is not wished to have a spreading bush. Our method consists in training them while they are growing. When 18 inches high pinch off with the fingers, or where a field is to be pruned we have found a pair of large scissors, with blades 5 inches long, to be an excellent thing to prune with; with them we can prune a row as fast as we can walk. You will need to prune the patch 2 or 3 times each season. In the spring, when the plants are one year old, prune or cut off all the laterals within 12 or 18 inches of the main stock before they start to grow; the second season cut out the dead wood and train the laterals so as to make the rows like a hedge; nip or cut off the new shoots when 3 feet high. In this way they bear larger and better fruit, are more convenient to pick, and are not blown down by the wind, as the bushes support each other.

The red varieties are increased by suckers or sprouts from the roots. They may be cultivated 2 seasons, and if needed for honey more than choice fruit, they may be allowed to occupy the ground. The black caps are increased from tips, *i. c.* by the ends of the vines taking root. The Doolittle, Mammoth Cluster and Home Sweet Home are especially adapted to cultivate in hedge rows, on account of their stock canes.

Farmers might load their tables with this delicious, health giving fruit the year round, by setting 25 plants of Doolittle for early, and 100 of Sweet Home for late use and canning.

New Boston, Ill.

For the American Bee Journal.

Apis Americana.

E. A. THOMAS.

There has been much discussion of late about "How to obtain the best race of bees," and I notice there is a great diversity of opinion in regard to it. I fully agree with the editor of the AMERICAN BEE JOURNAL that the coming bee will be the *Apis Americana*, a cross between our present Italians and some other race, and I believe that, although there are but few who hold that opinion now, the time is not far distant when the majority of the apiarists of America will acknowledge the superiority of the American strain of Italians.

During the past few years there has been a mania among bee-keepers for imported stock which has steadily increased up to the present time, but which I sincerely hope has now reached its height. Do not understand by this that I object to all importations for I do not, but only to those careless and almost reckless ones that, instead of improving, will cause the deterioration of our present excellent strain. So long as queen breeders in Italy know that any queens they may see fit to send to America will be accepted just because they came from Italy, just so long will some of them take advantage of such knowledge to ship to this country queens they would not be willing to use themselves, and which American bee-keepers would not accept as a gift if they knew what stock they sprang from. But only let them understand that they must send only the very best and purest that Italy can afford, or lose the American trade, and they will be more careful how they try to impose upon the credulity of American bee-keepers. There are many good reliable breeders in Italy, and those who are desirous of importing should search them out and give such their orders, and give all others a severe "letting alone." But to return to my subject. When an apiarist becomes, satisfied that he has an excellent strain of bees he should be very careful how he introduces new blood into his apiary, I care not from what source it comes whether from Italy or a home breeder, until he has thoroughly tested it and found it to be good. Many a bee-keeper after having obtained a class of bees that did credit to America and which bid fair to become worthy of the name *Apis Americana*, not content to let "well enough alone," has ruined his stock by introducing foreign blood that was as worthless as it was cheap. For the improvement of our present strain of bees I would suggest that queen breeders exchange queens from their working stock and make a careful record of the result of the cross. When they get a cross that is an improvement on their own bees let them breed from it and introduce the blood into their apiary. Thus by crossing the best blood in the country we may hope to obtain a strain of Italians that will rival those found in Italy, and which will be exported to all parts of Europe.

As regards the color of our bees, I beg to differ with those who consider it necessary to breed dark colored bees in order to obtain good honey gatherers. I have bred both dark and light colored, and I am satisfied that my present strain, which is as handsome as any one need wish for, has excelled anything I ever had or saw. If breeders will work carefully and use every means in their power to improve their bees, we may live to see Mr. Newman's prophecy come true, and the *Apis Americana* have a world-wide fame.

Coleraine, Mass.

Translated from Bienen-Zeitung by Greiner Bros.

Fertilization a Crippled Queen.

DR. DZIERZON.

In looking over a nucleus the past season, I found a young Italian queen just hatched. She was very large and beautiful, but in trying to make her flight she fell to the ground, because of her left wing being considerably shorter, and she could not rise, although she made every effort. If I had possessed a surplus queen, or even a queen-cell, I should have disposed of her; but as I had not, I left her in the hive, hoping that she might gain strength enough to enable her to make her wedding trip. Two days after I looked again and found my queen there still, and my experiments with her proved that she was as unable to fly as before. It occurred to me to shorten her long wing to produce equilibrium. She could then fly some, but dropped to the ground again. After I had trimmed her long wing down to the size of the crippled one, she succeeded in keeping herself up in the air for quite a while, although it seemed very hard work for her, and she finally reached her hive. I let her run in, then fixed an alighting-board, that she might have a chance to run from the ground up to her hive, if compelled.

On one of the following days I was in the apiary again at noon, and on looking about I noticed great excitement in one of the neighboring hives near said nucleus. When I opened the hive I found the short-winged queen in there balled, but not yet injured. Undoubtedly she came out to meet a drone, and on returning entered the wrong hive, which, when we consider her clumsiness, could not be wondered at. I picked her out of the ball, and took her back to her own hive. A few days after I found her depositing eggs, and she proved to be fertile; but whether she was fertilized on that trip, or whether she made another, is not certain.

Read before the N. E. Convention.

Best Method of Marketing Honey.

GEO. W. HOUSE.

In writing upon this subject I fully realize the difficulties of the task before me, and also the differences of opinion that exist on this interesting subject, and one that is of such vast importance to the honey producer of to-day. We are yet in the infancy of this enterprise, and time will doubtless reveal many changes and improvements where now we think we have attained perfection. Of course practical bee-keepers will employ all their energies to keep up with the times, and give their patrons the benefit of new developments as soon as they are proved to be improvements. We should ascertain what the market demands and then dilligently apply ourselves to the work, in order to reap the reward.

We talk of supply and demand; of overstocking the markets and overstocking the land. But in solving the problem of "marketing," man's inventive genius is called upon to provide the necessary elements, whereby the desired results may be attained without increased expense to the consumer or decreased profit to the producer. This is a practical age and requires practical inventions, to be used in the race for the "mighty dollar."

There need be no fear of overstocking the markets. Honey is being used by many manufacturers in the liquid form, and its demand is increasing throughout the land. Honey in the comb is finding its way to the tables of thousands of families throughout all Europe, where till recently it was never seen. Thus the question of overstocking the market is nearly settled. All honor to the Messrs. Thurber and their representative in Europe for their untiring energies in this grand undertaking. There are but few of us that realize the benefits of the exertions put forth by this great firm in finding a market for our products. Their undertaking has been crowned with success, and to them we owe our sincere thanks if nothing more. The markets of the world are open to our products, and it is now our duty to see that those markets are not ruined through any fault or neglect on the part of the American producer. We must also have united action looking toward the prevention of adulterations.

We must have co-operation in marketing honey, to produce the most satisfactory results. We have seen what wonderful results have been accomplished by associate action, and by a combination of interests. The great enterprises of to-day, that are so astonishing in their magnitude, are the results of associated effort, and this is destined to revolutionize the business operations of the world. We have seen what wonderful results have been accomplished by the associated system of dairymen. What unity and action has done for dairying and other branches of industry it may also accomplish for apiculture. Association and unity of action are the great mainsprings of power and progress in the world. I am pleased to know that the bee-keepers of this country are awakening to this principle in marketing their products.

While in New York city last October I devoted one whole day investigating the honey market, and I must say that I was completely disgusted with the workings thereof. Not being personally acquainted with more than two of the firms handling honey, I had a splendid opportunity to investigate the facilities and the workings of many houses, by withholding my name and pleading ignorance. The honey of some of our leading apiarists was found in several different commission houses, and one apiarist in particular, who has probably written and said more upon this subject of "marketing honey" than any other one person, consigned his honey to more than one commission house, and the honey was not put up in a very marketable condition at that; the edges of the boxes being covered with propolis, and evidently no attempt had been made to remove it. One commission house sold this man's white honey for 12 cents, while another house was holding this same man's honey at 18 cents.

One of the four honey houses in New York informed me that they received two-thirds of all the honey sent to that market. The proprietor of another house told me that he handled most of the honey sent on commission to that city. Of course I saw their stock of honey, and truthfully say that both houses combined do not sell one-fourth the amount of honey sold by either of the other two houses. These men misrepresented their business, and if they misrepresented to me why wouldn't they do the same to all other producers.

Then there are other commission men who receive now and then a small consignment of honey, and in almost every instance you will find that honey setting outside the door begging for a sale. After seeing all this and much more, I can say without fear of successful contradiction, that at present there are but two firms in New York that have the facilities of handling our products, H. K. & F. B. Thurber & Co., and D. W. Quinby. Undoubtedly there is not another firm in this country that can place our honey on the markets of Europe to so good an advantage as can the Messrs. Thurber, while Mr. Quinby, who has been in the business for many years and has many customers, can place honey to good advantage and satisfactory to the consignor. Both these firms are making a specialty of our products, and they are the only ones. Go to New York with your honey; see where it is destined; look over the field before you, and I will venture to say you will corroborate all I have said.

Such being the case, what are we to do? We must have unity of action. Let us concentrate what honey we put on that market by sending to these two houses. By so doing our honey will command a higher price, sell faster, and thereby insure us quicker and more satisfactory returns. What will apply to the New York market will hold good for any of our markets. We must concentrate our honey, and the quicker we do this the sooner we shall be able to sell our products for cash.

I will venture here to present another subject of great importance, and one that needs the co-operative effort of every apiarist. "Statistics of the aggregate production of both comb and extracted honey." With united action this can be accomplished. I would suggest that this association petition our national society, praying that the president thereof shall appoint reliable and willing vice-presidents in each and every State in the Union, whose duty it shall be to demand of each and every secretery of the different associations within his State to collect the correct statistics of the yield within his territory; to report to the vice-president, who in turn shall report to the secretary of the National society, and he be required to cause the same to be published in each of the bee-journals no later than the first of September.

Every bee-keeper in making up his report should be very careful not to over-estimate his yield. In the past this has worked injury to our markets, many bee-keepers making a fictitious and an exaggerated report for fear that some neighboring apiarist may lead them in the amount of honey produced. This is all wrong and I trust we shall soon see the end. Remember that honey buyers keep their eyes upon all reports regarding the amount of honey produced in the country. That from these reports they fix the price to be paid; and when we go to sell our honey we are compelled to face the reports. When we are able to furnish coreect statistics, then we shall see the benefit.

Our larger markets are mostly supplied by the larger producers or specialists, while our local or smaller markets are left to the amateur or novice. To control these lesser lights will be hard work; but as long as they keep out of the larger markets they will do no great injury. They will be helping to increase the consumption. As soon as we get to a basis of buying and selling, speculators will control these small lots.

Our markets are also much injured by placing our products upon them in an unmarketable shape. Honey in the comb should be placed upon the market so as to call the attention, and tempt the consumer to purchase. To this end we should put up our comb honey in single comb sections, the combs being straight and evenly built and completely capped over. In regard to size of boxes, the demand seems to be settling down to about three sizes, viz: 4x4, 5x5 and 5x6 inches. In glazing, we should have the glass nicely cleaned and put on in good shape, being careful to first remove all propolis or wax adhering thereto. In grading and crating the apiarist should give his personal attention, that he may be positive as to details should any question arise involving this part of the work. In grading it is well to make two grades white and two grades dark honey, putting all straight and perfect combs in the first grade, while those that are stained, unevenly built combs and not quite capped over should be put in grade No. 2. In dark honey we frequently have combs that are from ¾ up white, being finished with dark honey. This should be graded black, No. 1, and all remaining combs should be classed as buckwheat. In crating, use only neat white crates holding 12 boxes, or if the boxes are small use crates weighing from 20 to 25 lbs. net. The honey must not be veneered and the crates should weigh even pounds, *i. e.*, no halves or quarter pounds. We cannot be too particular in having our boxes and crates neatly made and placed on the market free from all dirt or stain or leakage.

In shipping, great care must be exercised. The crates should be placed in the car with the combs running with the car, not over 6 crates high, setting close together at the side and end.

Extracted honey is now classed as a staple article, therefore it is best to ship in bulk or barrels. But if designed for the retail trade it should be put up in small packages, such as small tin pails, or pint or quart glass fruit jars. something that can be used after the honey is consumed.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR,

CHICAGO, ILL., APRIL 6, 1881.

The Lessons of the Hour.

"Sweet are the uses of adversity," is a trite remark credited to Shakespeare, we believe. The winter of 1880-1 will long be known as one of the most severe in its nature and direful in its effects, not only in America but throughout the world.

A gentleman from Minnesota assures us that in the southern part of that State fully 10 feet of snow has fallen since the great storm of Oct. 14. Losses and privations have been *the rule* during the past 5 or 6 months. Fuel has been so scarce that in some places even the "liberty pole" has been sacrificed for use as fuel; those sections cut off from communication have been deprived of tea, coffee and sugar, and the coffee-mill has been made to serve the purpose of the flour-mill, to grind wheat for family use.

Heavy sleet storms have destroyed the timber, the principal sufferers being peach, soft maple, hickory and elm trees.

Birds, sheep, cattle and hogs have perished by thousands, being deprived of food and shelter and cut off from succor by the waves of death from the north and west, and the oft-repeated blizzard. Even mankind is no exception—untold numbers have been sacrificed upon the altar of the storm-king. Snow, hail, wind, blinding storm and blizzard-blast have united with poisoned air and miasmatic vapor to sweep men, women and children into the tomb, and is it any wonder that our pets—the bees—should suffer in common with all other forms of life?

But how difficult it is to discover the "sweet uses" of all this adversity! True, it may point out the more hardy kinds of trees, insects, birds and stock, to withstand the rigors of such seasons—upon the principle of "the survival of the fittest"—and it may teach men a valuable lesson on the necessity of securing more perfect ventilation, drainage and pure water.

When the unprecedented season shall have passed, let us try to fathom these deep lessons in respect to our bees. Perhaps there is a lesson to be learned here which we could learn in no other way. Close observation and profound study will no doubt be amply rewarded. "Let patience have her perfect work."

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☞ Dr. Ehrick Parmly, the genial Recording Secretary of the North American Bee-Keepers' Society, made us a very pleasant call last Thursday afternoon, on his return from a three weeks' tour through Colorado. We are glad to say the Doctor was looking and feeling remarkably well after his extended trip, and his jovial good nature done much to banish the gloom occasioned by the drizzling and monotonous snow which was then falling.

Is Bee-Keeping a Failure?

Now that the winter is drawing to a close, and the chilling blasts are becoming more fitful and spasmodic under the tardy but certain approach of spring, we begin to contemplate with an inward feeling of gratification the genial sunshine and gentle showers with which Nature will awaken to life; the far-stretching fields clothed in emerald green, the lawns and lanes with their grassy carpets, the air laden with the sweet perfume of the blossoms in garden and orchard, the trees in forest and grove animated with the feathered songsters whose little lives seem an incarnation of happy melody—all these will combine to help us forget the dreary hours of the past, and with keener zest enjoy the future. But how many will miss the cheerful hum of the myriads of toiling bees, whose flitting wings were wont to bear them from flower to flower, where they gathered nectar fit for a banquet of the gods.

We can scarcely wonder that many have become discouraged and almost doubt whether bee-keeping pays, when they think of the meager honey yields of two successive summers, and view the untenanted hives and soiled combs which are left as the sequel to their cherished hopes for the future. However, none should be too hasty in passing judgment. With the hives and combs already provided, more than one-half the original investment is saved, and with a propitious season for the present, our losses will be made good with a credit in our favor on the balance sheet. We cannot expect bee-keeping to be profitable every season, any more than any other special branch of industry which is dependent upon natural causes, but we can with forethought, industry and systematic perseverance, make it as reliable as any other, and now that many will be compelled to begin anew (or comparatively so), we suggest that they begin aright. It will not be a guaranty of success that they use the best hive, nor that they have an abundance of bees; a familiarity with all the recognized authorities and a mind crammed with theories, will often fail; the industrious brown bee will seek in vain, the gold-banded Italian bee will tire in its flight, and even *Apis dorsata* will view its stores with dismay, if there be no nectar-laden bloom from which to gather.

Now is the time to invest for the future. Every dollar judiciously paid out for seeds of honey plants will bear compound interest—will be "bread cast upon the waters." The traditional two or three weeks of honey-flow can, with a trifling expenditure, be made to last more than as many months; a succession of bloom can be secured, so that should northerly winds or wet weather prevail for a time, it would not carry dismay to our hopes and starvation to our bees. If, as we hope and confidently believe, the present should prove an unparalleled honey season, it will ameliorate the only tenable objection to melilot or sweet clover, which is that it blooms but little or none the first season; and we can well wait till another season for our "sweet" reward from it. There are many other plants which we believe would repay cultivation in honey alone, but not one that will bear comparison with this Esau of the vegetable kingdom. Never was a better time to start in right than now, and never can we truthfully say bee-keeping is more hazardous than other industries, or less remunerative, until we have made some provision against natural failures and seasonable disasters. Every bee-keeper should, in justice to himself, test this matter of planting on a sufficiently extensive scale to satisfy himself. We feel confident of the verdict.

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Law Against Adulteration in N. Y.

We have received the following copy of the bill against adulteration, referred to on page 92 of the BEE JOURNAL for March 23. Mr. L. C. Root remarks: "The readers of the BEE JOURNAL are, no doubt, interested in the progress being made regarding the bill upon which action was taken at the late session of the Northeastern Bee-keeper's Association. The subject is one of marked interest to bee-keepers in general. I send you a copy of the bill, which may be of interest and which shows the progress thus far made."

ASSEMBLY OF NEW YORK.—Introduced by Mr. Root—read twice and referred to the committee on trade and manufactures—reported favorably from said committee and committed to the committee of the whole.

AN ACT, To prevent fraud in the adulteration of sugars, syrups, molasses and honey.

The people of the State of New York, represented in Senate and Assembly, do enact as follows:

SEC. 1. Any person, company or corporation engaged in the manufacture, refining or mixing of sugars, syrups, molasses or honey for sale, who shall mix the same with glucose or grape sugar or any other article of adulteration, shall, before selling or offering the same for sale, cause to be marked on the cask or package in which it is contained, the percentage of glucose or adulteration therein contained, such mark or label shall be in plain Roman capital letters, not less than ½ each in dimensions, in black ink or paint, and on the upper and most conspicuous part of the cask or package.

§ 2. Any person, company or corporation who shall sell or offer to sell such mixed or adulterated sugars, syrups, honey or molasses containing glucose, grape sugar, or any articles of adulteration, shall expose or sell the same in or from the original packages in which it was consigned from the manufacturer or mixer to the same, and shall be plainly and conspicuously marked or labeled as required in the first section of this act.

§ 3. Any person who shall violate the provisions of this act shall be deemed guilty of a misdemeanor and on conviction thereof shall be liable to a fine of not less than $10 nor more than $200, or to imprisonment in the county jail for not more than 60 days, or both fine and imprisonment in the discretion of the court.

§ 4. This act shall take effect on the first day of June, 1881.

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Circulars and Catalogues.—The following Circulars and Catalogues are on our desk:

E. A. Thomas, Coleraine, Mass.—4 pages—Choice Italian Queens and Bees.

Kennicutt & Keyser, Tecumseh, Mich.—4 pages—Poultry and Bees.

Bright Bros., Mazeppa, Minn.—20 pages—Apiarian Supplies.

S. Valentine, Double Pipe Creek, Md.—4 pages—Italian, Albino and Holy Land Queens and Bees.

L. C. Root & Bro. Mohawk, N. Y.—12 pages—Bee-Keeping Supplies, Quinby's New Bee-Keeping, &c.

I. R. Good, Nappanee, Ind.—1 page—Holy Land Bees and Queens.

H. Barber, Adrian, Mich.—1 page—Russell Hives, Italian Queens and Bees.

Geo. H. Lamb, Wilmington, N. C.—1 page—Italian Queens.

J. M. Brooks & Bro., Columbus, Ind.—2 pages—American-bred Italian Queens and Bees, and Apiarian Supplies.

F. A. Snell, Milledgeville, Ill.—18 pages—Bee Hives, Italian Bees and Apiarian Supplies.

H. A. Burch & Co., South Haven, Mich.—40 pages—Bees, Queens and Bee-keepers' Supplies.

Riegel & Drum, Adelphi, O.—8 pages—Italian Bees and Queens and Apiarian Supplies.

A. T. Blauvelt & Co., Blauveltville, N. Y.—16 pages—Fruit and Ornamental Trees.

Vennor's Predictions for April.

So remarkable have his predictions been fulfilled in the past that we hope we shall not be disappointed in his predictions for May weather during at least a part of this month. The following are his probabilities for April:

There will be sharp frost in the beginning of April, with a snowfall on the 4th or 5th, but the spring will open favorably, and everything will be pretty well advanced by April 15. Floods may be expected in Chicago about the first week in April, with high winds also prevailing in the early part of the month. Snow-falls are probable about April 5. Navigation is likely to open on Lake Ontario about April 7.

The St. Lawrence will be open about the 9th or 11th, and the first steamship will probably arrive about the 17th or 18th. The weather will be very stormy in the Lower Provinces about the 20th, with very high water prevailing, but in the West, April will be a dry month. There will be warm weather just following the 20th, ending in thunder-storms on the 24th and 25th. Snow-storms are probable in the far West on the 25th and 26th, and snow-falls are not unlikely to occur in England at the close of the month. The month will end wet and cold, but, on the whole, will be like a May month.

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Two Queens in a Hive.—Mr. Fradenburg says: "I think I can throw a new ray of light on this subject, which is now-a-days attracting some attention among bee-keepers. I have come to the conclusion that there are but just two causes or conditions in which two laying queens will be found in a hive at once—the first is the superseding of an old and failing queen, in which case each queen seems to have a sort of reverence for the other; the second condition is that the bees in one part of the hive do not know at all times what is going on in another part of the hive. This assertion may raise a storm of opposition among the fraternity, but I believe I have the positive evidence to support it."

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☞ We have received a very nice specimen of thin foundation for surplus boxes, made on the Root Mill, from G. W. Stanley, Wyoming, N. Y.

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☞ This issue of the BEE JOURNAL, the first in the month, goes to all the subscribers of the Weekly, Monthly and Semi-Monthly. Should any of the latter wish to change to the Weekly, they can do so at any time, by paying the difference.

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☞ We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

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☞ California has had its floods, and now the Northwest is having a severe experience in the same line. According to Vennor our turn is next. Let all be watchful, and prepare in time, if possible, to avoid loss.

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☞ Single copies of the JOURNAL are sent postage paid for 5 cents each.

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☞ Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

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☞ The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

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☞ When changing a postoffice address, mention the *old* address as well as the new one.

SELECTIONS FROM OUR LETTER BOX

Correction.—In the BEE JOURNAL for March 16, page 85, the number of my colonies is given as 25; it should be 85. So far as I can learn they are in good condition. I winter them in the cellar. I have been handling bees for 6 years. Osage is a growing city, and will consume all the honey produced in this locality. There are about 500 colonies of bees in Mitchell County, and I will do my share in supplying the market with honey. CHAS. FOLLETT.
Osage, Iowa, March 21, 1881.

Good Enough.—My bees wintered well. I only lost one out of 92 colonies. Some have lost all they had; others ⅔, etc. The spring is backward. As yet we have had but few days that bees could fly. W. H. HOWLETT.
Union, Ky., March 22, 1881.

Using Old Combs.—Is it not dangerous to use combs with dead brood in from defunct colonies? Is there not danger of getting foul brood started? I have a good many of them, and I am undecided whether to melt them up or save them. The losses here have been fearful. I do not think there are 10 live colonies in Dixon outside of my apiary, and I have lost ⅓. Those lost were packed in dry chaff, as Prof. Cook's Manual directs, in Langstroth and Simplicity hives, while Root's chaff hive has come out ahead, only 2 or 3 hives of this kind have failed, out of about 30 chaff hives in use. There were as many as 10 or 12 different apiaries in and near Dixon, and I can count 8 of them now that are all dead; the most of them were small, containing from 6 to 30 colonies each. And the end is not yet. Those yet alive may die soon unless spring opens at once. B. F. PRATT.
Dixon, Ill., March 27, 1881.

[It is hardly possible there is a great deal of dead brood in the combs to be removed. We should not hesitate, if the brood is dry and shrunken, to place the combs in strong colonies; but if the brood is putrid and ropy, and sticks to the cells, we would not wish to use them, as it is easy to imagine the possibility of foul brood or other diseases arising therefrom. If, as we suspect, your combs are filled with starved bees, you can easily remove them by adopting the plan recommended in the Weekly BEE JOURNAL of March 16, page 86. Mr. H. T. Collins gives his method in this number of the JOURNAL.—ED.]

Never Give Up.—Bees are nearly all dead. A long winter is the cause, of course. "Never give up" is and must be our motto, but we must learn not to venture too far without experience to back us. N. J. LONGSDON.
Byron, Ill., March 26, 1881.

Good Prospect.—There is every prospect of a prosperous season now, as we are having rain enough, and I never saw bees in better condition. I commenced on the 3d of March to divide colonies, rear queens, &c. I have my hives nearly completed for the season's operations. There is quite a contrast between northern Iowa and southern Cal. for bee-keeping. I commenced the last season with 48 colonies in very poor condition, and this season I start with 108 in extra good condition; in fact, the poorest colony I have is in as good condition as the best was last season at the same time.
ELISHA GALLUP.
Santa Paula, Cal., March 18, 1881.

Spring Come at Last.—The weather is spring-like here, and has been since March came in. The snow has all disappeared, and our roads are dry and dusty. As I write the blue birds and robins are singing merrily.
HENRY ALLEY.
Wenham, Mass., March 23, 1881.

Come Gentle Spring.—I have 60 colonies in the cellar; they are in poor condition and will all die if Vennor does not give us fine weather soon, so that the bees can have a flight. They were all right March 1st. I like the Weekly much better than the Monthly.
WM. C. GRAY.
Pre-emption, Ill., March 24, 1881.

Bees All Right.—I have lost 2 colonies out of 16, and the remaining 14 are strong. I had them packed in buckwheat chaff, which is considered the best packing we can get. I have wintered for 4 years with it, and had success. In the winter of 1877 and 1878 I had 45 colonies packed in kiln-dried shavings and wheat chaff: but 4 were packed in buckwheat chaff and those 4 lived; the rest died. There was a very heavy loss around here among those that were left unpacked. I am well pleased with the Weekly BEE JOURNAL. W. S. BAIR.
Rollersville, O., March 24, 1881.

Lost 6 out of 100 Colonies.—The snow is all gone now and our bees have had several flights. On the 16th they gathered some pollen; but this has been the most disastrous winter among bees in Maryland for many years; 75 per cent of all the bees in north Md. are dead. We had a very poor honey season last year, except 5 weeks during the first crop of red clover, which ended about the 1st of July; and after that but little honey was gathered. The bulk of the loss was from neglect or starvation. As I had a fair demand for queens and I was breeding for improvement I kept up the queen breeding until the last of Oct., and my bees were in poor condition for an ordinary winter; much more for such a one as we have just passed through. I have lost 6 colonies at home, that starved; I have 96 left in fair condition. I wintered in a cellar expressly arranged for the purpose; it is perfectly dark, and the temperature in this place was kept all through the winter at 46° and 47°. All those that wintered in cellars fared the best. I am much pleased with the Weekly. I should lose a friend were I to be deprived of it. I wish it every success. S. VALENTINE.
Double Pipe Creek, Md., March 22.

Vexed and Perplexed.—When I go into my bee lot and look around I am vexed over the situation and perplexed to know what to do with my hives and combs. I put into winter quarters 16 colonies (all blacks) and now have one, very weak. I have a lot of nice, well-made and painted hives on hand, and a lot of combs. As I have never handled Italian bees, and have concluded to purchase, and I hear they are larger than the blacks, will you please answer these 2 questions in the BEE JOURNAL: Are comb cells of the black bee too small for the Italians to raise brood in? Will it not cramp them in size? Will it be safe to feed the thin uncapped honey that has caused dysentery to other bees? The bees in this vicinity are all dead. Success to the BEE JOURNAL. D. S. KALLY.
Mansfield, Ind.

[The difference in size of cells is not perceptible. If bees are flying freely, you can feed the thin honey with impunity.—ED.

Ventilation.—I have met 14 different persons in the last few days that had, last Nov., 168 colonies of bees altogether; now they have in the aggregate 57 living; these were mostly in frame hives, on the summer stands, and left to care for themselves. Nearly all died with plenty of honey to have carried them through. This, I think, will be about the average loss in the counties of Champaign, Piatt and Moultrie, in this State. Wm. H. Beckwith started in the winter with 18 colonies in Langstroth and box hives, with plenty of bees and honey in each hive. The hives were very poorly made, being open at the corners, with a board laid on top to keep the rain or snow from falling directly into the hive. Nearly all of them set on blocks from one to two inches from the bottom board; they were ventilated better than any bees I have seen this season; he has 16 colonies to day, alive, and apparently in good condition. Perhaps there is more in ventilation than chaff hives or cellars. Will some one please rise and explain?
S. GOODRICH.
Urbana, Ill., March 23, 1881.

Bees Confined 5 Months.—Yesterday my 115 colonies of bees had their first flight since the last week in Oct., having been confined to their hives 5 months, lacking 2 or 3 days only. This is a month longer than I have ever had them confined to the hive without a flight, during the past 12 years, and to my very great satisfaction as well as astonishment, I do not find a single dead colony. Some 5 or 10 are considerably diseased, and a few are almost sure to be found queenless. I expect to lose from 5 to 15 between this and honey harvest. Bees generally have wintered very poorly in this section. From ½ to ⅔ of all the bees put in winter quarters last fall, have died. I winter entirely in chaff hives, and from what I hear I judge that that method of wintering has succeeded better than any other during this past winter.
O. O. POPPLETON.
Williamstown, Iowa, March 25, 1881.

Orchard Apiary.—The following is my report for 1880; My bees came through very strong in spring, and bred rapidly, and were in excellent condition to take advantage of fruit bloom, which lasted about a week, during which time they filled the hives well with honey, and it is well that they did, for raspberry and white clover proved a total failure here, on account of bad weather in June. My surplus all came from basswood, which produced well for about 10 days. Notwithstanding the poor season, and it was the poorest we we have had, I realized a profit of over $8 per colony; but went into winter quarters strong and with plenty of good wholesome stores. E. A. THOMAS.
Coleraine, Mass., Feb. 1, 1881.

Loss in Cellars, etc.—I put 95 colonies in the cellar on Nov. 15. I took them out yesterday, which was the first day they could fly with safety since about the first of last Nov. Loss 4 (one probably queenless when put in, and 3 starved). A few are weak, but most of them are in good condition. This has been a very hard winter on bees that were not properly cared for. Those left out are nearly all dead, as far as heard from. A good many have died in cellars and special repositories, for want of a knowledge of the proper conditions for success. I like the JOURNAL very much.
J. E. HUNTER.
Wyoming, Iowa, March 25, 1881.

Blasted Hopes.—For the first time, I enroll myself in the army of "blasted hopes." My 150 colonies of bees are (all but one) among the things that were. I had no honey from them last season, or at least none but what I fed back in the fall, and a good many were entirely destitute, so that I broke them up. Some had a little honey and I gave that to those that had a little more, and still had 150 left. Winter set in early, about the middle of Nov., before I had packed any of them. I waited for milder weather so that I could pack them, but that did not come until the 6th of March. Never a day did my bees have a fly until then; and then I had but one colony fly, and I hoped they would come through all right in my double hives, but they did not. Most of them had plenty of honey. All of those having honey had brood and some of them young bees; such had soiled the combs. The one that is alive is strong and has plenty of brood. I thought that bees did not commence to raise brood until a warm spell, but it seems I was mistaken. I have heretofore boxed up a part and left a part unprotected, and have had success with both. I think I should have done better to have boxed them up this year. I have now a lot of empty hives and a great plenty of nice combs. I shall not need any foundation nor bee supplies this year; but need bees to cover my combs. In the BEE JOURNAL for March 9 Mr. Doolittle's article on "Bee Moths" contains an error. A year or two ago I was at a friend's in Allegan Co., in this State, in September, and he told me that the moths were killing all of his bees. I then thought like Mr. D., that they did not hurt good colonies. He said they did and showed me swarms, with new white combs, the queen and brood all right, but the sides of the hives were white with moth cocoons. They were all black bees; I do not think they would have troubled Italians. I like the Weekly BEE JOURNAL very much, but do not know that it will be of much value to me now. The cause of the death of my bees was, I think, the long steady cold, with no flight; and not the extreme cold; but why did one of them live through all right? It was just like the rest in the fall. A. C. BALCH.
Kalamazoo, Mich., March 12, 1881.

The Outlook Encouraging.—The loss in wintering has been very heavy in this county during the past cold winter. In one apiary near me, in Langstroth hives, only 5 are now alive out of 100 last Oct. My home apiary of 175 colonies last Oct., mostly in closed-end Quinby-frame hives, wintered on summer stands packed with fine straw and chaff, now numbers only 115. The loss has been much the heaviest in open end frames, especially so in metal corner frames. Out of 78 in such frame hives only 2 colonies are left. Last year was the poorest season I have had in 12 years; I had but one natural swarm during the season. White clover was a failure; there is but little basswood near here. By feeding I kept my bees in good condition for the fall harvest; smart weed furnished a very little; Spanish needle (the best honey plant in this section) was a total failure; this is the 2d year in 12 that it has failed. I had one apiary near the Illinois river which contained 120 colonies last spring, in Quinby hives. The early part of the season was poor, but I had during the season 21 natural swarms and over 3000 lbs. of section honey for sale, with a surplus of 3000 lbs. in brood frames; more than enough to winter them, which I brought to my home apiary. The above harvest was wholly from smart weed, which was grown on overflow land near the Mississippi and Illinois rivers. The loss in this apiary will not exceed 10 from all causes. All are strong and booming. The soft maples are now in bloom; every fair day the bees are carrying in pollen and a very little honey; the elm will soon be in bloom furnishing an abundance of pollen for rapid queen rearing. With favorable weather I expect a spring harvest from the willow privet bush and red haw; the honey from these is very light colored and of excellent quality. Your hopeful outlook for the coming season is very cheering. The Weekly is both a pleasure and a necessity with me. A. T. WILLIAMS.
St. Charles, Mo., March 24, 1881.

Severe Winter, but Bees All Right.—This has been the most severe winter experienced by the oldest inhabitant in Ky. I have 14 colonies well packed in chaff, on their summer stands; 3 in the star chaff hive, 9 in the simplicity with tight bottom and portico, and 2 in the simplicity hive. Banked each of them on 3 sides with snow; 12 faced south, 2 north, with no winter passages; used the enameled cloth contrary to friend Muth's advice. I packed on each side of those in single-wall hives with loose chaff, also on the top. I had from 3 to 7 frames in each hive. All wintered equally well, and to-day the queens are doing their duty nobly, shut in on from 2 to 3 frames, and crowded with bees. I think the chaff hive unnecessary for this climate, but it is necessary to pack them well with an absorbent in order to bring them safely through our generally changeable winters. Success to the Weekly; it is growing in interest from week to week, and its coming is anxiously longed for. C. H. DEAN.
Mortonsville, Ky., March 18, 1881.

Winter Bee House.—My bees have wintered splendidly in my winter bee house. L. CARSON.
Frederick, O., March 24, 1881.

Bees Wintered Well.—Bees on the summer stands without protection have wintered poorly in this vicinity. I have fifty colonies in Quinby hives, packed in oat chaff and cut straw, that have all wintered well so far. Most of the bees in this vicinity are in box hives, and nearly ½ of them are dead as far as heard from. E. DEUEL.
Portlandville, N. Y., March 24, 1881.

Bees in fair Condition.—My bees are in a fair condition, on the summer stands. I put into winter quarters 66 colonies; lost 3 and bought 14, making 75 in fair condition. Owing to old age and poor health I intend to sell my bees, although I regret it very much. Last year was a very poor one for honey. I obtained about 600 lbs. of comb honey, which I sold for 15 cts. a lb., and I had one swarm. I like the Weekly BEE JOURNAL very much. I had one colony of bees swarm out on the 15th of this month; they flew around about half an hour and then went back into the hive again. I examined them on the 17th and found the colony strong. with combs all dry and nice, and about 25 lbs. of honey, some pollen, with eggs and brood in all stages. They are now satisfied. J. J. QUINN.
Corydon, Ky., March 25, 1881.

The Survival of the Fittest.—Another blizzard struck us yesterday; the weather is not so cold, but the high winds and heavy fall of snow make it more disagreeable than any day of the cold zero weather. Bees will get another set-back by their brood chilling. Those that come out in good condition this spring can be considered tough citizens, and no mistake. JOS. M. BROOKS.
Columbus, Ind., March 30, 1881.

Half of the Bees Dead.—There is a loss of more than one-half of the bees in this county. I am well pleased with the Weekly BEE JOURNAL.
W. A. HERRON.
Indianola, Iowa, March 28, 1881.

Wintered Without Loss.—I believe I am the only one in this county that has not lost more or less bees this winter. My bees were all transferred from box hives last fall, their stores taken away, and they were fed on syrup. They have wintered without any loss of bees. I have bought of Mr. Muth, of Cincinnati, some extracted basswood honey, and shall dilute it with sugar syrup and feed this spring. My bees all have more or less brood now. W. T. CLARY.
Clarysville, Ky., March 29, 1881.

Wintered Safely.—Bees are dying very rapidly in this section of country. I have 18 colonies; 2 are weak, but I have lost none so far. I bought a Cyprian queen from a firm in the East. She wintered all right, but her workers are hybrid Italians. I lost one last fall by foul brood. I am much pleased with the Weekly BEE JOURNAL.
WM. H. GARHIAN.
Northumberland, Pa., March 28, 1881.

Chaff Did Not Save the Bees.—The bees in this vicinity are mostly dead. Chaff did not save them from the effects of the past severe winter.
L. HUBBARD.
Waldron, Mich., March 25, 1881.

Wintered in Chaff.—Three-fourths of the bees in this neighborhood are dead. I packed mine with chaff on the summer stands, and they came out nice and strong. I am a beginner, and derive much benefit from the BEE JOURNAL, which is a welcome visitor.
EVAN B. HADLEY.
Deming, Ind., March 29, 1881.

Eleven Swarms from One Colony.—I commenced the last spring with 13 Italian and 4 black colonies, and in the fall I had 70; lost 6 in wintering by being queenless. I have sold 4, and now have 60 doing well. I had 11 swarms from one colony and its increase, besides 50 lbs. of honey. The BEE JOURNAL is *the* bee paper, and I wish it success. E. CARR.
Leesville, Texas, March 14, 1881.

A Visit Every Week, Very Pleasant.—My bees have been at work on the soft maple for the past week. I commenced the winter with 31 colonies; I now have 21; many of them are very strong; some died with plenty of honey in their hives. Last season was a poor one, giving no surplus. I think there will be a heavy loss of bees here. I thought I would not like the Weekly BEE JOURNAL as well as the monthly, but I would not exchange it now for any monthly, because I can hear from my bee-keeping friends every week. I wish it great success. N. DAVIS.
Emporia, Kan., March 28, 1881.

Buds are Swelling; Spring is Coming.—By the JOURNAL I notice that the winter has been a disastrous one to bees. It must be hard to report a loss of ½ or ¾; and some of the reports even say—"all dead." I am afraid that some of the bee-keepers in this section can say ditto to these reports. The loss around here is greater than there is any need of, on account of the carelessness of farmers in preparing their bees for winter; some of them leave them out on the summer stands without any protection whatever, and of course the result is plain. I have wintered mine in the cellar for the past 2 seasons without any loss, except one that starved this winter; and I am to blame for that in not knowing their condition when I put them in the cellar. I think that now all fear of loss is past, for my bees are doing as well as could be desired. They are breeding considerably, and are all bright and healthy. The snow is going off slowly, at last, and we may look for spring soon. The maple trees are full of swelling buds—it is too early to say anything about fruit bloom; I don't know whether it is killed or not. White clover looks well where the snow is off, and it promises well for the coming season. HARRY G. BURNET.
Blairstown, Iowa, March 26, 1881.

Bees About All Dead.—I put my bees into winter quarters in the Mitchell hive, packed with clover chaff at each end of the hive about 6 inches thick, and over the top with cushions with the same, about 4 inches thick, all on the summer stands. My loss is now about 2 per cent. The snow is now from 12 to 15 inches deep; this does not look very encouraging; the bees in this part of the country are about all dead. I like the JOURNAL much better as a Weekly than pefore; it gives us *fresh* news. S. M. OLDHAM.
Reynoldsburg, O., March 30, 1881.

Double-Walled Hives.—A large proportion of bees have died in this vicinity this winter. I have lost 6 colonies out of 16. I am using Hill's double-walled winter bee hive. I lost none wintered in these hives, but every one in Langstroth hives died. I wintered on summer stands and one hive had as much protection as another. I feel sure I should have saved all if I had used the double-walled hive; those that died had honey enough in the hive to have wintered them through, if they could have got at it. My bees are carrying pollen every day they can be out.
J. R. WILCOX.
Utica, Ind., March 29, 1881.

Losses in Wintering.—Having seen no report from this vicinity, I have taken some pains to ascertain the extent of the losses of the bee-men of this part of Wayne county, Ind. I have reports (some of them indirectly) from 34. Ten report a total loss; 8, 90 per cent.; 6, 80 per cent.; the others from 33 to 25 per cent. The average loss of colonies will probably be 80 per cent., and those colonies which survive are very much reduced in numbers. Most of them were left unprotected on the summer stands. I find that those that were taken into the cellar before the severe cold of November, came through with small loss, while those taken in after ice had accumulated in the hive, fared the worst of all. I am an advocate of cellar wintering, having never lost a colony until the present winter, and that is through neglect in not taking them in early; I lost 3 this time. I am convinced that dysentery (the one great cause of our loss) could have been much mitigated by keeping an even temperature, which cannot be done out-of-doors, and had we removed their unsealed, poor food and fed them candy instead, our reports would have been different. Two colonies thus treated by me came through in good condition. My bees gathered pollen and honey yesterday from the willow. Maple will be in bloom in a few days.
M. H. WOLFER.
Richmond, Ind., March 28, 1881.

Local Convention Directory.

1881. *Time and Place of Meeting.*
April 2—S. W. Iowa, at Corning, Iowa.
5—Central Kentucky, at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
7—N. W. Ohio, at Delta, Ohio.
13—N. W. Missouri, at St. Joseph, Mo.
D. G. Parker, Pres., St. Joseph, Mo.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
12, 13—Texas Bee-Keepers' Association, at McKinney, Collin Co., Texas.
W. R. Howard, Sec., Kingston, Hunt Co., Tex.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 18—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
Bee-Keepers' Magazine (A.J.King)	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T,G.Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 18@20c. for strictly choice white comb in 1 and 2 lb. boxes; at 14@16c. for fair to good in large packages, and at 10@12c. for common dark-colored and broken lots. Extracted, 8@10c.

BEESWAX.—Choice yellow, 20@23c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 14@16c.; fair do., 14@16c.; dark do., 11@12; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 80@85c.

BEESWAX.—Prime quality, 20@23c.

CINCINNATI.

HONEY.—The market for extracted clover honey is good, at 8@10c. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY.—The "Vigilant" takes 600 cases to Liverpool. There is a slightly improved feeling consequent upon a little more inquiry, but prices show no material appreciation. Discouraging reports are received from the southern part of the State, as to the prospects of the coming crop, but other sections give promise of an abundant yield. With a good supply yet on the market, prices are not apt to be buoyant until the anticipated failure is more fully settled. We quote white comb, 12@13c.; dark to good, 9@11c. Extracted, choice to extra white, 5½@6½c.; dark and candied, 5@5½c.

BEESWAX—22@22½c., as to color.
STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., March 11, 1881.

A Smooth Complexion can be had by every lady who will use Parker's Ginger Tonic. For promptly regulating the liver and kidneys and purifying the blood there is nothing like it, and this is the reason why it so quickly removes pimples and gives a rosy bloom to the cheek. See notice.

☞ We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

☞ Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

☞ Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

☞ The Michigan Bee-Keepers' Association will convene in Pioneer Rooms, of the State Capitol at Lansing, May 5. The following is the programme:

Regular order of business.
Annual address by Pres. W. J. Ashworth.
Address by T. G. Newman, editor of American Bee Journal; subject, Rise, Progress, Present Condition and Future Prospects of American Apiculture.
Essay—Profitable extent of bee-keeping, by James Heddon, Dowagiac.
Essay—Requisites of an Apiary, by H. A. Burch, South Haven.
Essay—Some important facts in bee-keeping, by Prof. A. J. Cook, Michigan Agricultural College.
Discussions and remarks.
Examination of exhibits.
All exhibitors of supplies are requested to send samples to the Secretary, with prices and descriptions attached, and all transportation charges must be prepaid by the exhibitors. GEO. L. PERRY, *Sec.*

☞ Programme of the Northwestern Bee-Keepers' Union, to be held at Hastings, Minn., May 17, 1881:

1.—Address of Welcome, by J. N. Searls.
2.—Reports of committees.
3.—Reports from all—number, kind and condition of bees.
4.—A paper by Pres. A. Tidball, on honey-producing plants and flowers.
5.—A paper by Dr. P. Barton, of St. Paul, on honey as food and medicine.
6.—Apiary culture and our fairs, by Hon. William Avery, of St. Croix Falls, Wis.
7.—A paper on sales of honey, by F. B. Dorothy, of Taylor's Falls, Minn.
8.—A paper on wintering bees, by L. Day, of Farmington.
9.—Progressive bee-culture, by J. G. Teter.

The above subjects will be open for discussion. In addition to the above, the following subjects are suggested:

1.—Essential properties of a good bee hive.
2.—How to prevent and cure foul brood.
3.—How to prevent spring dwindling.
4.—Comb Foundation, with dividing and natural swarming.

Appointment of committees.
Election of officers. Adjournment.
☞ All bee-keepers are cordially invited. Entertainment free. F. B. DOROTHY, *Sec.*

☞ The Northern Indiana Bee-keepers Association will hold their regular meeting at the Court House, at Valparaiso, Ind., April 7th, 1881, at 2 o'clock p. m., for the election of officers, and for the transaction of any other business that may come before the meeting.
J. B. DECROW, *Sec.*

☞ The North Western Wisconsin Bee-keepers Association will meet at Germania Hall, LaCrosse, Wis., on Tuesday, May 10, at 10 a. m. All interested in bee-keeping are requested to be present. L. H. PAMMEL, JR., *Sec.*

☞ The Semi-Annual meeting of the Champlain Valley Bee-Keepers' Association will be held at Bristol, Addison Co., Vt., May 19, 1881.
T. BROOKINS, *Sec.*

☞ The next meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held at H. W. Lee's, 2 miles n.w. of Pecatonica, Winnebago county, Ills., on the 17th of May, 1881. J. STEWART, *Sec.*

☞ On account of unfavorable weather the convention at Monroe Centre, Ill., met on Feb. 8, and there being but few present, adjourned to the same place on March 29, 1881.
A. RICE, *Pres.*

☞ The Texas Bee-Keepers' Association will hold their third annual Convention at Judge W. H. Andrews' apiary, in McKinney, Collin Co., Texas, on the 12th and 13th days of May, 1881.
WM. R. HOWARD, *Sec.*,
Kingston, Hunt Co., Texas.

Gray Hairs Are Honorable but their premature appearance is annoying. Parker's Hair Balsam is popular for cleanliness and promptly restoring the youthful color.

☞ Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

☞ It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

HEADQUARTERS IN THE SOUTH,
for the Manufacture and Sale of
BEE-KEEPERS' SUPPLIES
SIMPLICITY
AND
LANGSTROTH HIVES
AND FRAMES,
The New All-in-one-piece Sections!

Having purchased, from A. I. Root, a machine for making these sections, I am ready to supply them in any quantity. Comb Foundation, made of pure yellow wax, and worked on shares; Honey and Wax Extractors, Knives, Bee Smokers, etc.

Italian Queens & Bees!

all bred from imported mothers of my own importation. Dollar Queens, ready April 1st, $1.10, until June 1st; after, $1.

Tested Queens from 1st March to 1st November Safe arrival guaranteed and all queens sent by mail, I send no queens that I would not have for myself. Full colonies of Italian Bees from $5 to $8.50, according to quantity, etc. Early 4-frame nucleus, with Tested Queen, $5. No black bees in the neighborhood. Send for my Illustrated Catalogue of prices, etc. Address,

PAUL L. VIALLON, Bayou Goula, La.

The Sweet Home
RASPBERRY

Is the largest, most productive, (bearing 125 bushels per acre,) firmest, best shipping Raspberry ever introduced; perfectly hardy, been tested by 30° below zero; sells the best; costs less to pick, because it is firmer; and uniformly larger than any other Black Cap. For Circular address,
9m2t D. D. PALMER, New Boston, Ill.

Friends, if you are in any way interested in
BEES OR HONEY
We will with pleasure send you a sample copy of our
Monthly Gleanings in Bee-Culture,
with a descriptive price-list of the latest improvements in **Hives, Honey Extractors, Artificial Comb, Section Honey Boxes**, all books and journals, and everything pertaining to Bee Culture. *Nothing Patented.* Simply send your address on a postal card, *written plainly*, to A. I. ROOT, Medina, O.

A NEW PLAN.—For one dollar we will send full printed directions how to prevent the end of the sheet of wax from adhering to the rolls in making comb foundation. Address,
1m6t **SMITH & SMITH**, Kenton, Ohio.

ITALIAN QUEENS.
Tested Queens.....................$1 50
Warranted Queens.................. 1 00
Cyprian Queens, untested.......... 1 00
As most all the Dollar Queens I sold last year were pure, I will warrant them this year. J. T. WILSON,
Mortonsville, Woodford Co., Ky.
1m6t

Italian, Cyprian & Holy Land Queens.
Single Queen, Tested **$2 00**
" Untested, laying.. **1 00**
By mail, safe arrival guaranteed.
8-frame colony... ....**$6 00**
3-frame nucleus.............. **3 00**
2-frame nucleus.............. **2 50**
By express, safe arrival guaranteed.
W. P. HENDERSON, Murfreesboro, Tenn.
1m6t

CYPRIAN QUEENS for 1881.
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Will pay for our exhaustive pamphlet on raising, handling and marketing extracted honey.
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high side-walls, 4 to 16 square feet to the pound. Circular and samples free.
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Sole Manufacturers,
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THE Headquarters in the South
for **ITALIAN** and **CYPRIAN BEES** and **QUEENS, FOUNDATION** and **APIARIAN SUPPLIES.** If you want Early Queens, from stock selected for their most desirable qualities, or want Imported Queens, Dunham Foundation in large or small quantities, or Apiarian supplies of any kind, at moderate prices, send for my new Illustrated Price List. Pure Beeswax worked on shares and bought for cash. Address,
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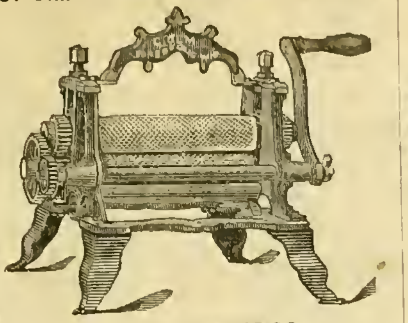

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Giving prices and descriptions, with cuts, of his
IMPROVED LANGSTROTH HIVE,
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UNEXCELLED BEE FEEDER,
The Three Popular and
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Wired or not, in Langstroth frames or out.
Protectors, Honey Knives, Smokers, Glass, Honey and Wax Extractors, etc., together with the Best Honey-Yielding and Market Garden
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☞ No Circulars sent unless solicited. 1t7

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We will make the Dovetailed or the "Boss" One-Piece Section any size up to 5x6, for $5.00 per 1,000. Material for Langstroth hive, 50c., including brood frames.

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Take Notice.—There is a patent pending on the "Boss" one-piece Section. 9mtf

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Send for our 20th Annual Price List. Full Colonies, Nuclei and Queens at reduced rates. also headquarters for Apiarian Supplies in New England.
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Italian Queens Only 80 Cents.
Warranted $1.00, Tested $1.50, 10 frame Colonies $5.75 to $8.00. ☞ Send for Circular, and save money.
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1881. 1881.
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I guarantee all my Queens to be purely mated.
☞ Send for price list—free.
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It is to every person's interest, when they wish to purchase anything, to go where they can get the most for their money. State on a postal card just what you want, and we will let you know by return mail what we will furnish it for. No Circulars. Address,
12mtf **HIRAM ROOP**, Carson City, Mich.

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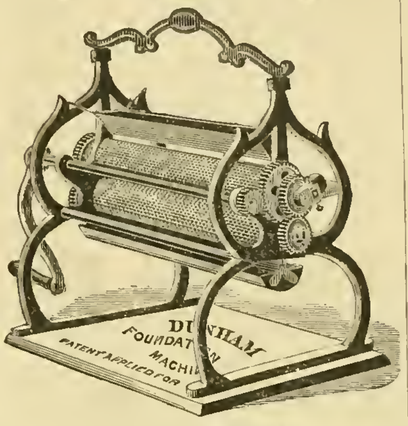
Inventor and Sole Manufacturer of the
DUNHAM
FOUNDATION
MACHINE,



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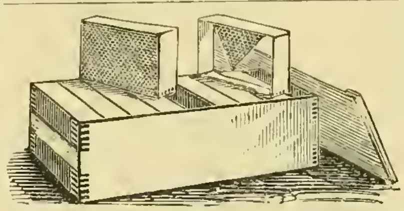

TWENTY-EIGHTH YEAR.
65 **First Premiums, Medals and Diplomas.**—Send postal card, with name and address, for my new Illustrated Circular and Price-List, containing valuable information to all bee-keepers. CHAS. H. LAKE, successor to the late Richard Colvin, 96 West Pratt Street, Baltimore, Md. 4wtf

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I shall import, direct from Italy, **Choice Italian Queens** this season, and will sell them at $5 each. Tested Queens, of my own rearing, from Imported stock, $2 each; Untested, $1 each. Imported and Tested Queens will be sent by Express, and Untested ones by mail. **G. H. ADAMS,**
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"American Apiary" for Sale.
About **150 Colonies of Bees**, in fair condition, in Langstroth hives; honey and wax extractors, empty combs, and the usual implements of an apiary, will sell for cash or trade for land.
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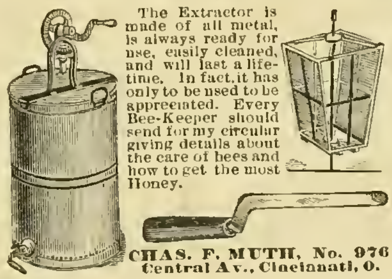
HONEY EXTRACTOR
AND UNCAPPING KNIFE.



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1m1y

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9m2tp Mazeppa, Wabasha Co., Minn.

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To send a postal card for our Illustrated Catalogue of Apiarian Supplies before purchasing elsewhere. It contains illustrations and descriptions of everything new and valuable needed in an apiary, at the lowest prices. Italian, Cyprian and Holy Land Queens and Bees.
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2eow15t Hartford, Wis.

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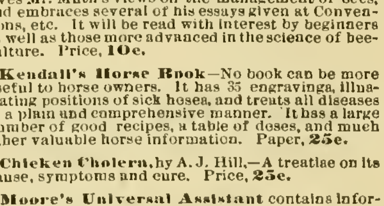

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We can furnish Emerson's Binders, gilt lettered on the back, for AMERICAN BEE JOURNAL for **1880**, at the following prices, postage paid:

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Bees for Sale.

I wish to sell my **75 Colonies of Bees**, all in movable frame hives, in fair condition. I will take **$4.00** per Colony.

J. J. QUINN,
14w1t Corydon, Henderson Co., Ky.

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Material for Langstroth Hives, including brood frames, 40c. each; Lewis' V-shaped groove one-piece Sections, any size to 6x6, $5 per 1,000; Lewis' one-piece Honey Boxes of all sizes, $2 to $4 per 100, including glass; Dovetailed Sections, any size to 6x6, $4 per 1,000. Manufacturing experience of 20 years.

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N. B.—There is no patent on the Lewis One-Piece Section. 12mtf

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The *British Bee Journal* is published monthly at $1.75, and contains the best practical information for the time being, showing what to do, and when and how to do do it. **C.N.ABBOTT,** Bee Master, School of Apiculture, Fairlawn, Southall, London.

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14m1t Mohawk, N. Y.

Rev. A. SALISBURY,
Camargo, Douglas County, Ill.

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PURE COD LIVER
OIL AND LIME.

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Best, Gentlest and Most Beautiful Bees,

I am prepared to furnish early Queens.

PURE ALBINO,
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HOLY LAND QUEENS,

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14w3t Winchester, Randolph Co., Ind.

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300 COLONIES

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are now being booked and will be filled in rotation as received, commencing about June 1st., at the following prices:

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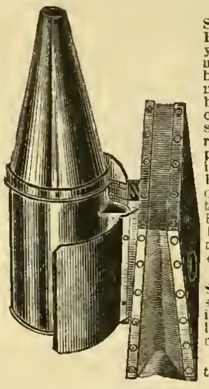

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OLDEST BEE PAPER IN AMERICA

THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

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CORRESPONDENCE.

For the American Bee Journal.

The Clover Experiment.

E. E. HASTY.

The kindly notice of myself in No. 7 of the Bee Journal moves me to give its readers an account of what I am trying to do. It is evident to all on a slight examination that the red clover secretes a large percentage of the honey yielded by the entire flora of the Northern States. It is also evident that the most of it goes to waste, because it lies provokingly just a little further down than the honey bee can possibly reach. Bees work at red clover somewhat as boys work at barrels of molasses, getting a little taste while shut out from the grand supply within. In the direction of getting this immense store of choice honey three different lines of effort are being prosecuted. The first, which will be immediate in its results if successful, is that of Messrs. Jones & Benton, of taming and importing the *Apis dorsata*. For this expensive attempt we owe them a tribute of gratitude, whether they succeed or fail. It seems, however, most likely that this effort will result practically in failure. The *dorsata* is likely to refuse to live in a hive. That difficulty being surmounted, it is still more likely to perish, even in a hive, during a northern winter. Even if successfully wintered, it is still liable to have demerits that will keep it from being of any practical use to us.

Another line of effort is that of developing and crossing our present races of bees with intent to produce a bee with a longer ligula. The right man and a sufficient number of years being given, something could undoubtedly be done in this line. Our bees already reach the bottom of some diminutive clover tubes in the fall of the year; and every improvement would enlarge the number that could be fathomed. Bees also lick some honey from the inner surface of clover tubes, in which they cannot reach the bottom, and every improvement would enable them to get more. But to get all the honey in the present red clover the length of a bee's ligula would have to be nearly doubled—a practical impossibility, most likely. We may suppose that nature has already developed this organ pretty nearly up to the limit its structure admits of.

One other line of effort remains. The corollas of flowers are among those objects in nature that are most easily modified by human agency. It is probable that we can produce a clover which shall retain the good qualities of the well known farm clover, and differ from it by having a short-tubed flower that the bees can reach the bottom of. I do not know whether I was the first to suggest this plan or not. My first printed article on the subject was published in the August number of *Gleanings* for 1879. I had, the previous June, spent considerable time in selecting clovers in the fields, and had transplanted to the garden most of the ten samples that form the basis of my present kinds. It matters but little, however, who was the first to move in the matter; the idea has now spread abroad among the bee-keepers in both continents, and there is a fair prospect that some substantial results will follow.

Liriodendron tulipifera—often called Poplar, in the South.

As to the mode of operating, the first thing is to obtain a plant, or plants, to start from. Clovers vary considerably in their tube length. In June the average is about 42-100 of an inch, and the extreme range about from 39 to 50. Late blooms are somewhat shorter. A vigorous plant, with no bad points about it, having flower tubes considerably shorter than the average, must be obtained and seeds gathered from it. The initial difficulty to be surmounted is this: Nearly all the seedlings from this chosen plant will fail to have short tubes like the present; they will have tubes of average or more than average length. Just a few out of many seedlings will more or less resemble the parent in the desired respect. One of these must be chosen to raise seed from, and the process must be repeated many times until the tendency to long-tubed flowers is bred out. From the most tractable sample I now have, most of the seedlings produced tubes perceptibly shorter than the average last summer. This is as far ahead as I have got yet in the long but interesting task. The plant of this sample chosen for the parent of the next generation had a tube length of about 36—not quite so short as the original plant, to be sure, but some hundredths should be allowed for the difference of circumstances. The original was half choked and starved by weeds and a poor soil, while this is very luxuriant. While breeding out the tendency to long tubes, from time to time little positive gain can be hoped for among the choicest seedlings. These must be held and bred into permanence, as at first, until the desired length is reached. If we can perfect a clover that will have all its tubes as short as 32 we can no doubt improve the honey bee up to that point. I once held a clover head in my hand, the tubes of which I had filled with syrup, and a bee directly under my eye emptied one to the depth of 32-100. I have four different samples of clover that have yielded some heads with tubes as short or shorter than 32. If, however, we can perfect a clover having a tube-length or not over 24, then all our bees, good, bad and indifferent, can take their fill.

I think that every apiarist, possessed of any taste or talent in that direction, should give a little time and thought to something in the way of improvement for the common cause—some honey plant, or some improvement of the bee, or some new importation, or some improvement of things used in the apiary, or some new method of apiary work. No one can cultivate all the wide fields, but each can cultivate some little nook or corner. Inside the apiary I choose the native brown bee for my corner. I really don't think he has had a fair chance as yet, and so I incline to let others attend to the imported races. It surely cannot do any harm to the cause to try the effect of a little good breeding on all the races of bees that come to hand.

Richards, O.

For the American Bee Journal.

Stingless Bees—Meliponas, Etc.

DR. WM. R. HOWARD.

The *Meliponas*, according to Mr. F. Smith, in a paper on Brazilian honey bees, read before the Entomological Society of London, March, 1863. "are insects having wings shorter than the abdomen, the latter being convex and oblong; their mandibles never being denate; while the *Trigonas* have the wings more ample, and longer than the abdomen, which is short and somewhat triangular, while the mandibles are serrated, denticulate, or sometimes edentate. The *Meliponas* are restricted to the new world, while *Trigona* extends into Africa, India and Australasia." "Gardner, in his travels, gives a list of such species (of *Melipona*) as he met in the provinces of Piauhy and Goyaz, where he found them numerous; in every house he says, 'you find the honey of these bees;' many species, he tells us, build in the hollow trunks of trees, others in banks; some suspend their nests from branches of trees, whilst one species constructs its nest of clay, it being of large size. The honey, he says, of this species is very good." (Smith.)

"M. Guerin found six females in a nest of *Melipona fulvipes*."

In a nest of *Trigona carbonaria* from Eastern Australia, Smith, of the British Museum, found from 400 to 500 dead workers crammed in the spaces between the combs, but he did not find a single female among them; the combs are arranged precisely similar to those of a common wasp. The number of honey-pots, which are placed at the foot of the nest, amounted to 250. Hill states in Gosse's Naturalistic Sojourn in Jamaica, "that the wax of these bees is very unctuous and dark colored, but susceptible of being whitened by bleaching. The honey is stored in clusters of cups, about the size of pigeons' eggs, at the bottom of the hive and always from the brood cells. The brood cells are hexagonal; they are not deep, and the young ones when ready to burst from their casement, just fill the whole cavity. The mother bee is lighter in color than the other bee, and elongated at the abdomen to double their length." Smith also states that the female of this genus has the abdomen greatly distended, reminding one of the gravid female of the white ant.

The *Meliponas* were known to Huber, who experimented with them and made drawings of their cells.

From the above it will be noticed that the proposition to send queens to the members of the "Stingless Bee Association of America," that should the valuable queens arrive safely, they would certainly be somewhat like the negro's banjo without strings. They could not be introduced in with our common hive bee any more than you could a bumble bee into a hornet's nest, and besides, if the bees were sent in full colonies the honey, as Mr. Langstroth suggests, would be so far from the brood nest that they never could reach it; and were this not the case we never could make the management of them anything like successful or satisfactory; and while right here let me quote an article from the *British Bee Journal* on the subject of *Trigonas*, referred to by a correspondent of the *Guide*: "Although *Trigonas* cannot sting, an apiarist would be compelled to beat a hasty retreat if he sould attempt to meddle with their nest." (Hives you see are dispensed with). "For such an offense the little fellows will make a terrible attack on any person, and in an instant the hair and clothes of the attacking party are filled with an offensive squeaking. They cut off his hair." The correspondent further remarks that, "this thing might be tolerated by lady apiarists that possess an extra 'switch' or two, but for those who can hardly afford a wig at all, it would be a little expensive unless the price of wigs should decline. Perhaps the importation of this variety of bees might prove a great aid to the barbers, to help them in 'peeling.' As these bees do not use wax, but mud or resin, a new industry might arise in connection with the manufacturing of tile, viz: the making of honey cells for the said *Trigonas* to fill with honey."

Kingston, Tex., March 11, 1881.

* * *

For the American Bee Journal.

Have we a Reliable Test for Honey?

L. JAMES.

About a year since I purchased a quart of glucose syrup, knowing it to be such, to try it for household use. As we did not like it, the fruit-jar containing it was set on a shelf in the pantry exposed to a bright light, yet not to the direct rays of the sun. Sometime during the past winter I had occasion to use some extracted honey, and going to the pantry to get it I mistook the jar containing the syrup for candied honey; but on attempting to get it from the jar, a waxy or taffy-like adhesiveness quite different from that of honey in a like condition excited my surprise at its adhesiveness, and to settle the question I was induced to appeal to the sense of taste to assist in deciding the matter. This did not recognize it as honey, and upon inspection the eye readily detected the lack of granulation noticeable in honey, but in its place a waxy or salve-like appearance. When purchased it was of a beautiful color and rather pleasant taste, but now, after having assumed a taffy-like appearance, it has lost its pleasant taste and assumed one quite different with apparently little sweet in it, as if it stood in need of honey or sugar to help it go down.

Having read the proceedings of the Northeastern Convention, on page 70 of the BEE JOURNAL, current volume, I find that body adopted Mr. Root's resolution, that all liquid honey will granulate, candy, or become hard at the approach of cold weather, and that this quality is a *sure indication* of its purity, etc. Having this sample of corn syrup (or glucose as I suppose it to be) before me, I recognize in it an article that if mixed with honey, would not in all probability offer any impediment to the hardening process in pure honey. A trial of the mixture of the stuff with honey would alone be the true test as to this point. Heretofore I have recognized in the above standard a correct test of purity in honey; but this stuff sold at a high price as the best silver drips, or some other kind of drips, causes me to call in question our reliance on the above test as an infallible one.

I send by express a sample of this syrup for your inspection, and if it is not exposed to sufficient warmth to liquify it, I think you will agree with me that it will require a good eye and an expert to detect the adulteration.

Atlanta, Ill., March 3, 1881.

[The sample received is quite nauseating in smell, but in skillful hands could be manipulated with honey to a degree of perfection well calculated to deceive any but an expert.—ED.]

* * *

For the American Bee Journal.

Side-Storing for Surplus Honey.

G. M. DOOLITTLE.

As intimated in the last number of the BEE JOURNAL, I will resume my friendly talk with Mr. Heddon. He says in the Weekly BEE JOURNAL, on page 33, Feb. 2d: "To me, an argument in favor of side-storing is an admission that the shape or construction of the hive of the advocate is faulty." I take it he cannot mean exclusive side-storing, for I know of no such hive, or any person advocating such a hive. From the expression, "I prefer a top-storing hive *exclusively*," I understand that he means that "an argument in favor of a hive which admits of both side and top boxes, like Quinby's, Betsinger's, Doolittle's, etc., is an admission that the shape or construction is faulty." If I am correct, Mr. Heddon uses the "tiering-up" plan in working for box honey; *i. e.*, as soon as the first set of boxes are two-thirds full, they are raised up so as to take a second set between those partly filled and the brood chamber below. I hardly think he would recommend but a single tier of sections on top of each hive, for in such a case a strong colony of bees would not have room enough to work to advantage.

Well, I do not know that I can prove to him that he is making a great mistake in using and advocating "top-storing *exclusively*," in any better way than to give my experience, and the causes which led me to believe right contrary to what he does. The year 1870 was the first really good honey season that we enjoyed after commencing bee-keeping. At that time we used the Langstroth frame and practiced the tiering-up process. At the end of the season we found we had taken from our best colony in the apiary, 140 lbs. of box honey. This I thought a large yield, till I found that Mr. Betsinger had gone considerably ahead of it with side-storing hives. Two poorish seasons followed, during which Mr. B. nearly doubled us in quantity of honey per colony, and in 1873 we made a few side-storing hives to test the matter. Although we found we had over-reached the mark by putting too many boxes at the sides, still we could see an advantage in favor of side and top-storing combined, for the reason that our bees would build comb much faster at the side than on top, while they would store honey much more rapidly on top than at the sides. Thus we were not slow to learn that if we wished to secure a good yield from our bees, we were to raise the sections built full of combs (or nearly so) at the sides, to the top, as fast as full boxes of honey were taken from the top, and placing our empty sections at the sides every time. Thus we worked till 1877, using top and side-storing combined, and the tiering up process, about equally. At the close of the season of 1877, we found that 185 lbs. was the best done by any of our colonies which had been worked on the tiering-up plan, while of those worked on the side-storing we found that three, collectively had given us the large amount of 896 lbs.—one producing 309, another 301, and the third 286, while our whole lot of side-storing hives gave an average of over 200 lbs. each. This was a *clincher* in favor of side-storing, and, in his language on page 66 of the Weekly BEE JOURNAL. "I was not prejudiced in its favor because I adopted it," but "I adopted it because I was prejudiced in its *favor*," and to-day all tiering-up appliances are out of date in our apiary. Candidly, did Mr. Heddon ever, without partiality, try the combined plan of side and top-storing? If he has, I can but wonder at his words first quoted in this article. If not, they show his expression was a little premature.

I see Mr. Heddon has adopted 8 Langstroth frames as his standard as regards the number that should be used in a hive. We have adopted 9 Gallup frames, which is about the same as 7 Langstroth frames, and if I was using the Langstroth hive, 7 frames would be all that I would use, for this reason: If we wish to make a success of producing box honey, the frames in the brood apartment must be full of brood (not honey nor empty comb) at the time the honey harvest commences; if not, the first storing will be done in the space unoccupied with brood, instead of the bees going immediately into the boxes, and I have found by experience that if there is room in the brood chamber for the bees to store from 6 to 10 lbs. of the first honey gathered, they are very loth to enter the boxes, thus crowding out the queen with honey, for they will keep crowding her to more or less extent, if such conditions are present, to the end of the harvest. But let them have every available cell full of brood, and the first honey gathered will go into the boxes, thus inciting an ambition to store in the boxes rather than in the brood chamber. I do not wonder that Mr. Porter (see page 73 of the BEE JOURNAL) failed with "Doolittle's plan," as we see he used 10 Langstroth frames. If 10 Langstroth frames are used (as a rule) the two outside frames will be filled with honey, and bees will not travel over a sealed frame of honey to go into boxes at the sides while those on top come close to the brood in the center of the hive, at the top of the frames; but let the brood come as close to the side boxes as it does to those on top, and our experience is they will enter the side boxes first, unless coaxed into the top boxes with full sections of empty comb, as we always do.

In the next Weekly BEE JOURNAL I will give my experience with separators.

Borodino, N. Y., March 29, 1881.

* * *

For the American Bee Journal.

The Discharge of Feces in the Hive.

A. A. BALDWIN.

To the question, "Do bees willingly discharge their feces in the hive?" I say, no! A number of apiarists claim that during the confinement of winter they discharge their feces in a dry state or form. Now if this is so, they must be endowed with reason to decide whether they are in a perfectly healthy condition or not. Every apiarist knows that bees when affected with dysentery are very loth to discharge their excrement in the hive, choosing, rather, to leave the hive, even amid the piercing winds of winter. We have many demonstrations of this fact in almost every apiary after this long cold winter. We find some colonies quite badly distended as they come out for their first flight, but on looking into the hive find the combs clean. Now if it was natural for them to discharge their feces in their hives we should not have a clean hive or comb after such a long confinement as they have had in many sections of the country this winter. It is evident that cold and moisture are the two main causes of dysentery among bees; too much dampness, either in their food or in the atmosphere which surrounds them. My experience is that bees will endure a confinement of 5 months or longer and come out in good condition if all things are favorable. I had my bees in the cellar one winter, 5 months and 8 days, and they came out in good condition and did well the next season. Let us talk up the subject of absorbents.

Sherman, N. Y., April 5, 1881.

CONVENTION
NOTES

North-Eastern Wisconsin.

At the North-Eastern Wisconsin Bee-Keepers' Association, held at Oshkosh, the following topics were discussed:

Different Races of Bees.

Mr. Winslow. I decidedly prefer Italian bees, the purer the better.

Mr. Potter. I prefer Italian bees, decidedly; they protect themselves much better. I have 180 colonies and got 1,500 lbs. surplus.

G. S. Church. I have only black bees; I have kept them for 20 years.

Geo. T. Sanford. I found less difficulty in wintering black bees.

M. A. Gill. I have no choice as to race, but consider as superior those of any race that are vigorous and have ragged wings, which denote hardiness and longevity and that bear their loads to the hive entrance without lagging.

Conrad Dippel. I certainly prefer Italian bees on account of gentleness.

C. Grimm. I keep black, Italian and hybrid bees.

Jacob Childs. My 20 years experience gives preference to Italian bees. On a scale of 7 they mark 7 on swarming; 6 for docility and gentleness, and 6 for beauty.

John Dickinson. I have had no experience with black bees. Hybrids begin work more readily in sections, the leather-colored Italians coming next. As to industry and general working qualities, Italians have given proof of their superiority. Hybrids come out stronger in the spring and get through a cold winter better, but Italian bees build up more rapidly.

Best Method of Wintering Bees.

John Hodgson. I tried different ways each year for 8 years and decided the cellar the best. It should be built on a side hill and kept at a temperature of 35° with a pipe to carry off foul air.

Mr. Potter. I favor the cellar. I have tried chaff hives and have lost all. I have 90 colonies in a room 14x22; have no trouble with mice; put chaff over the hives.

Fred Badger. I have wintered bees in Iowa, never here till now. My bees are now standing out and in good condition. I use chaff boxes 6 inches deep over the frames.

Mr. Potter. Bees will stand temperature at 45° and live.

Fred Brooks. My brother found a bee-tree a week ago and found the bees very lively.

Mr. Winslow. I keep my bees entirely on summer stands packed in wheat chaff and burlaps. I have had unsatisfactory experience with cellars.

L. Fatzinger. My bees invariably succeed best in the cellar.

D. Abott. After various experiences I prefer the cellar, with a temperature of 35° to 40°, with ventilation from without and up.

Jacob Childs. I never tried anything except out-door wintering packed in chaff—oat, wheat and buckwheat—with equal success.

Christopher Grimm. I favor cellar wintering.

Conrad Dippel. I favor chaff hives on summer stands.

Geo. T. Sanford. I favor chaff hives.

M. A. Gill. I maintain that north of parallel 40, a cellar if perfectly pure and dry, and all light excluded, is preferable.

John Dickinson. I winter ⅔ in the cellar and ⅓ out-doors packed in pine sawdust or chaff. Those out-doors are placed with backs to a terraced wall and covered with factory cloth and straw and old hay. In this way they winter rather better than in the cellar.

C. J. Hennings. The best method of wintering bees is to bury them.

Is Upward Ventilation Necessary in Winter?

Mr. Potter. I use upward ventilation.

C. J. Hennings. Give them ventilation at one end on the lower part and at the other end upwards.

M. A. Gill. In cellars upward ventilation more than a quilt would give is needless, but on summer stands direct upward ventilation is necessary.

Geo. T. Sanford. Answers yes.

Conrad Dippel. Upward ventilation is needed, and as much as 4 inches of chaff will allow.

C. Grimm. It is necessary in cellars but not out-doors.

Jacob Childs. I consider upward ventilation quite necessary, but let it be through 10 inches of chaff, and burlap between the bees and chaff.

L. Fatzinger. I think it necessary if done without a draught through the hive.

Mr. Winslow. In chaff, only such upward ventilation as will go through light chaff and burlap.

John Dickinson. I have tried it with and without ventilation and find no particular difference.

Amount of Food Bees Consume in Winter.

It was generally conceded that it depended all on the length and severity of the winters, place of keeping, etc. No one seemed to have weighed their hives both fall and spring to ascertain with exactness. Some thought 25 lbs. was none too much, while others thought they had wintered swarms on as low as 10 or 15 lbs.

Mistakes of and Hints to Beginners.

The sentiments expressed are about all one way—go slow and do not increase too rapidly. Some of the individual expressions were as follows:

Mr. Potter. Beginners increase too much. They should keep their bees strong; they should never keep more than 5 colonies the first year and 10 the second.

Mr. Gill. Beginners make mistakes in getting too many bees before acquiring thorough knowledge of them, and too rapid increase leads to disaster. They should commence with 2 or 3 colonies—never more—adopt some standard hive and study the bee periodicals.

Jacob Childs. If you would succeed go to some practical and successful bee-keeper and learn the trade.

Conrad Dippel. The principal mistake is in dividing too often or letting them swarm as often as they please. Beginners should never depend on bees and honey alone for a living.

C. Grimm. Do not invest much at the beginning.

Wintering on Grape Sugar.

Mr. Hodgson. I fed 5 colonies on grape sugar last winter and lost 4 of them. Will never try it again.

Conrad Dippel. I do not feed, touch nor handle it; I am entirely averse to it.

C. J. Hennings. I never had success with grape sugar.

John Dickinson. I tried it thoroughly with bees in the cellar, but had to take it out by Christmas. One colony of bees was dead and the rest were in a bad condition. I dread grape sugar and will let it alone.

Best Method of Swarming for Wisconsin.

Mr. Potter. This is a fine point. The past season artificial swarming would ruin colonies and to rely on natural swarming would give no increase. If you rely on natural swarming you must have your colonies very strong early so that they will swarm by the 14th of June. I recommend natural swarming.

Mr. Church. I do not like to let them increase at all, but practice both natural and artificial swarming. I move natural swarms as soon as hived to the place where they are to stand.

Fred Badger. I use a mullen stalk tied on a pole, and in every instance the swarms would cluster upon it.

Mr. Winslow gave an instance where a bee-keeper he knows uses a long pole with a wad on the end covered with black alpaca, resembling the color of bees, and catches swarms every time.

Mr. Potter. I sometimes clip the queen's wings and when she comes out I catch her. When the swarm is out I replace the old hive with a new one and turn in the queen loose, when the swarm will return to the new hive.

Mr. Haight. I do not approve of clipping queen's wings and do not practice it any more. Could not work it with a large number of colonies.

Conrad Dippel. In Wisconsin I find dividing the best and most easy method of increasing the number of swarms.

C. Grimm. I favor natural swarming, but if rapid increase is desired, dividing should be practiced.

Mr. Gill. For the specialist natural swarming is preferable, but for those engaged in joint business—farming and bee-keeping—dividing is the most desirable.

L. Fatzinger. The best way is to let them swarm once, then cut out the queen cells and introduce a laying queen.

John Dickinson. I could not stand natural swarming in an apiary of 100 colonies or more. Too much trouble. I believe that bees do work just as well when properly divided as when allowed to swarm naturally.

C. J. Hennings. I believe it best to let them swarm once, in Wisconsin.

Jacob Childs. Either way is good, according to circumstances, which must be determined by judgment.

Geo. T. Sanford. I prefer natural swarming.

When to Divide Colonies.

Mr. Potter. If bees are strong and old combs plenty divide as soon as the clover yields; if they have only honey, divide in May.

Mr. Winslow. I find second crop of white clover valuable.

Mr. Green. I divide as soon as bees are strong enough. I get most of my honey in the fall.

Mr. Gibbons. I divided both ways and found those divided after clover season did the best.

Conrad Dippel. I consider the best time after clover season and before linden blossoms.

C. Grimm. If the colonies are strong divide before, if weak, after clover season.

Geo. T. Sanford. Before, if strong enough.

Mr. Gill. I would advise dividing only in exceptional cases before clover seasons.

M. Mabin writes: If increase of stock is desired without regard to quantity of surplus honey, divide at the beginning of the white clover season; if a larger amount of honey is desired with a moderate increase, divide after clover season. If the largest amount of honey possible is desired and no increase, don't divide at all.

Does it Pay to Melt Old Combs and Use Foundation?

Mr. Potter. Not if the comb is whole and straight.

Mr. Green. I had the best success with new foundation.

Conrad Dippel. Comb foundation is indispensable. I give it to new and old colonies after dividing.

Mr. Gill. Not necessary with straight worker combs.

L. Fatzinger. If clean, straight comb save it; otherwise melt.

John Dickinson. It decidedly pays to do it with present price of wax and foundation, even without a machine.

C. J. Hennings. It does pay.

Mr. Sanford. I think it does.

Mr. Grimm. It does, if combs are very old and part drone cells.

R. A. Morgan says it does, and gives practical tests in support of it.

Division Boards and Surplus Honey.

All agree that they are useful early in the season, and may be used in the upper story to induce bees to work more readily, and in the lower to increase breeding by keeping the bees warmer.

Is the Basswood in this State Killed?

Few of those present had any knowledge on the subject, and the letters received varied somewhat, some thinking not and others deploring the rapid destruction of basswood. Several communications urged bee-keepers to set out linden trees and have them properly guarded and fenced in.

The North Eastern Bee-Keepers' Convention all through has been somewhat informal, although considerable interest was manifested by the few in attendance. Tuesday afternoon the following officers were elected:

President, Geo. S. Church, Neenah.; Secretary and Treasurer. Mrs. Frances Dunham, Depere; Vice-Presidents, L. H. Pammel, LaCrosse; John Hodgson, Pewaukee; C. H. Green, Berlin; A. Potter, Eureka, and H. P. Sayles, Hartford.

A resolution was passed to hold the next meeting in Berlin on the second Tuesday and Wednesday in October, but at the evening session this resolution was reconsidered and the place fixed for Pewaukee, at the same time mentioned.

Read before the N. E. Convention.

Wintering Bees Successfully.

L. M. WAINWRIGHT.

Heat and electricity are the staple, vital forces of life in animal organization. Combine all the other favorable circumstances that a smiling Controller of the universe could bring about, in absence of the great forces, and all is wrapped in the chilly sable mantle of an eternal sleep. Could it be that nature should be clothed in her mantle of grandeur, watered by the silvery sprays of the welcome clouds, with the rainbow's glories seen through the misty vapor, and the sun alternately shining in his glory, yet with the earth's normal condition of heat and electricity absent, the cold, icy arms of death would chill all the pulsations of life, and cause everything to sleep quietly in the stilly shades of universal night.

Before late autumn's and early winter's chilly winds scatter the hoary frosts, all colonies should be prepared for winter under the genial rays of an October's sun.

How to Prepare for Winter.

Remove the top story of the hive, take off all surplus honey boxes and remove the outside combs from the brood chamber, leaving in the center of the hive only enough well-filled combs to carry the bees safely through until spring. Place the lids on the brood chambers, and they are ready to wheel into winter quarters as soon as the proper time comes, which varies with latitude; but in Central Illinois, as a rule, about the middle of November.

Winter Repository.

It may consist of a dry, underground cellar, a cave in a hillside, or a frost-proof building on top of the ground; but as the style of the repository is no part of the discussion, we leave this part of the subject for others to decide.

Cleansing the Repository.

If the building is infected with mice, trap them all a month or so in advance of putting up the bees, and a few days before the bees are housed burn a suitable amount of sulphur in the room to destroy all accumulations of fungi, then with a suitable brush wash the walls with a weak solution of carbolic acid and water, after which leave the house open until all is sweet and pure.

Storing in Winter Quarters.

Select a nice cool day or evening about the middle of November, soon after the bees have had a purifying flight. Close up the entrances of the hives, and place 1 or 2—or as many as as you are prepared to wheel—on a spring wheelbarrow, if you have it, if not, a common one will do, running it on a smooth track. Wheel directly into the repository, and stack your hives one upon another as high as you can lift them, always being careful as you stack them to raise each lid ½ inch above the hive all around, by slipping under the lid a suitable number of ½ inch pieces prepared for the purpose. Avoid placing the hives against the walls of the building, as this might produce a concussion among the bees from an outside jar of the building.

Winter Management.

After the bees are properly adjusted in the house for the winter, 3 things are to be considered. First: A proper temperature of the atmosphere. Second: Plenty of fresh air. Third: A humid condition of the atmosphere.

(1.) The murcury should show a higher or lower temperature in proportion to the strength of the colonies housed. If the colonies are very strong, 40° Fahr. is about right. Medium colonies, from 45° to 50°. But if very weak, or nuclei with queens, about 60° is necessary to keep the bees in a good, healthy condition. Colonies should be graded according to strength, and placed in repositories adapted to their wants.

Sometimes when bees begin to leave their hives and plungo into the dark abyss before them, "never, never" to return to their once happy homes, we are liable to attribute the whole excitement to too high a temperature, while the facts are that the atmosphere is too dry, and the bees thirsty after a long confinement.

(2.) Bees, like animals of a higher organism that live and bask in the great ocean and sea of atmosphere—which alike in all places enshroud the globe, imparting life, vigor and health—should have plenty of fresh air. True, bees can live in an atmosphere so foul, and breathed over and over so frequently that a human being would soon die in it. But this is no argument in favor of wintering bees in a room filled with impure air. Air should be admitted through a subterranean air duct. If 15 or 20 rods long, and passing through a 6-inch tile, the air will enter the room at 40°, while the mercury stands at zero in the open air.

(3.) A humid condition of the atmosphere may be kept up by placing vessels of water in the room; but bees do not particularly want water before sometime in January, especially if the honey is thin.

Should very warm weather occur at any time in the winter, the mercury rising to 60° day and night in the open air, no one should take fright and rush their bees out doors, probably to be frozen in a very short time. In proportion as the thermometer in the room rises above a proper temperature, increase the surface of the water pools in the house, and throw all the doors open at nights, and the result will be the same as produced in a damp atmosphere in the spring, with a temperature of 60°.

Combs will not grow moldy inside of 4 months in a damp atmosphere, if in a well ventilated hive filled with a good colony of bees, and the house properly warmed. Combs will grow moldy when a hive has no upward ventilation and the room is cold, but more especially if the swarm is small, even if there is no water in the room. It is a cold atmosphere that kills bees and molds combs in a house. The vapor exhaled from the bees not only settles on the outside of the combs, but after a time finds its way into the cells and lodges in small drops against the septum of the cells and creates a heavy fungi in a short time.

How Long Should Bees be Housed?

As a rule they should be kept in until they can gather some pollen from the soft maple and willows. It is not the length of time that bees are confined that stupefies and kills them, but the unfavorable circumstances under which they are confined. Where they are kept warm and in a room with a moist atmosphere (but otherwise dry), and have plenty of fresh air, they never eat more than the system requires to supply the loss that is continually going on in animal life; and when brought out after 4 months' confinement, they are as perfect as when winter overtook them.

When they are old before housing, they will die in the spring before young bees in sufficient numbers can take their place to sustain the "old homestead." We call this spring dwindling. Other unfavorable causes will produce like results.

I will not argue the question of repository wintering, as it is vastly better in a cold climate. As the "Sunny South" always enjoys the blushing smiles and geniel rays of a warm sun, the bees will care for themselves in such a climate. Not so in the North, where the mercury falls to 25° or 30° below zero, and remains down so long that they cannot take wing for 6 or 8 weeks. They will generally perish and become unhealthy if on their summer stands. Chaff packing in ordinary winters will keep up a very good temperature outdoors; but alas! when it sinks 30° below zero, and the winds are sweeping over hill and dale like a mighty tornado, winter's icy breath severs the tender cord, and life gives place to the still reign of death.

Noblesville, Ind.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., APRIL 13, 1881.

☞ In Bohemia, Austria, the Society has changed its name to "The Austrian Society of Bee Friends," and has elected Herr R. Mayerhoeffer its President, who in a recent letter says: "I am surprised that you can publish the BEE JOURNAL as a Weekly—such a thing is only possible in America. I wish you the best of success."

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☞ The *Indiana Farmer* says that the annual report of the Bureau of Statistics, just out, places the number of colonies of bees in the State at 146,327, and the number of lbs. of honey taken, 1,197,627, or 8.18 lbs. per colony. This report is for the honey crop of 1879, which was a very poor season, the estimated yield being only half a crop. Lawrence county reports the largest number of colonies, 7,168. Allen county next, with 4,114. Crawford county the least, only 142 being reported. In production Lake county stands at the head with 59,984 lbs.

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☞ A disgusting discovery was recently made near Birmingham, England. The *Mark Lane Express* of March 7, says:

"The Inspector found in the 'manufactory' the steam machinery in operation, and about 1,300 lbs. of diseased horseflesh, mutton, etc., in various stages, from the 'raw material' to the 'finished' potted meat, sausages, saveloys, 'savory ducks,' German polonies, etc. There were nearly 200 lbs. of sausages recently made, and colored with red ochre to give them a fresh appearance; 2 diseased sheep, 200 lbs. diseased horseflesh, and cans of potted meat, being mostly diseased horseflesh."....

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Uniting Colonies in Early Spring.

Will you please to tell me, through the BEE JOURNAL, how to put 2 colonies of bees together and manage them so they will not fight?

MRS. H. THOMPSON.
Vermontville, Mich.

Cook's Manual, page 253, recommends spraying and smoking for successfully uniting in summer and fall; but in quite early spring there is some danger of chilling brood, if the operation is performed by unskilled hands. We think the following will be the best plan for early weather: Remove the queen from one colony and put the frames with bees and brood at one side, putting in a divider made by tacking wire-cloth on one side of a brood frame, with the ends extending to reach full length of the hive; now bring the brood, queen and bees from the other hive and place in this one, close the entrance on the bees and queen, put in for 24 hours, slant a board in front, remove the hive vacated, and the work is done. In 24 hours, or the next night, remove the obstruction from the entrance, leaving the slanting board in front, which will cause the bees to mark their home anew. On the third day remove the dividing-frame and the board from the front. No hive should occupy the old stand, from which the queen and bees were removed, for several days.

Conventions, and their Mission.

I have been thinking of the real solid visits and enthusiastic discussions we have at our Conventions. In these discussions we get not only the last and best thoughts of the participants, but inspired thoughts—truths told with masks off. Prof. Cook says enthusiasm is the main source of successful honey-producing, and much more is it the success of a bee-keepers' Convention. But our Conventions are universally marred by long and tedious essays. Just as the meeting has reached a degree of warmth that is inspiring, the Secretary hauls out a long essay (may be a "prize essay"), and reads, and reads, till the glow of the members is charred to coal. At its close every attendant feels tired and like a man in a wet blanket. D. sighs, M. draws a long breath, B. yawns, and then all hitch in their seats, and a sickly silence comes over the scene. But soon the next topic is taken up, and a new enthusiasm kindled, which is destined to the same fate. It seems to me that the offering of "prizes" for these essays to promote and encourage Conventions, is like paying a premium on murder to promote morality. Is there any argument in their favor that is not answered by saying, "Send them to the JOURNAL as correspondence?"

At our meetings we are never at a loss for interesting topics, but for the *time* to discuss all that we can feel are of importance to us. Those who are in attendance have borne the expenses, and have a right to the time over the essayist. A short letter of greeting, and now-and-then a topic suggested by an absent member, would not be so bad. Do you not know that what I have stated above is true, from your experience at Conventions?

Topics should be suggested and published some days before the meeting, and each member or proposed attendant should prepare himself to speak on the subject, by revolving it over in his mind. Of course, we are not orators; but neither are we essayists. While some of us are not gifted at theorizing and drawing deductions, all can tell their experience in some shape, and what is of more value? Experience is the foundation of the whole fabric.

District Conventions are what we need. Good reporters are next in order. We want a report that is condensed in words, but not in thought. A man to fill that office must possess a knowledge of the topic under discussion, and a superior power of handling words.

The bee-keepers of our Congressional District, embracing this southwest corner of Michigan, are now taking steps for an organization, and although I am so busy that I cannot help it along as much as I would like to, yet I will do all I can, and hope we may soon be organized permanently. I believe I prophesied such local Conventions some years ago.

JAMES HEDDON.
Dowagiac, Mich., March 23, 1881.

We must take occasion to thank Mr. Heddon for broaching this subject in his terse, happy manner. It must have occurred to every reader of the BEE JOURNAL, as it has frequently appeared to those in attendance at the Conventions, that some of the essays were long and prosy, and frequently two or more upon the same subject; while the essayists themselves must have felt the necessity for prolixity, in order to meet supposed arguments which might be opposed against theories advanced. It frequently happens that much valuable time is occupied in this way, that would have been saved had the writer been present, and many records perpetuated which had been better forgotten.

We should not forget, however, that many discoveries are being made, many exceptions to acknowledged rules frequently occurring, and apparent contradictions of theories arising. These should be brought before the Convention for discussion. Some one present can probably explain a seeming mystery in a few words; others may profit by their experience.

Mr. Heddon is correct in his estimate of the value of *good* district Conventions. They harmonize what would otherwise be competing interests; they foster a fraternal feeling; they encourage an emulative spirit of superiority, and elevate the nobler instincts of humanity.

The Secretary might be chosen with especial reference to his apicultural knowledge and reportorial qualifications. Promptness in making out his report, if intended for publication, is quite as essential as promptness in attending to any other business entrusted to him. The reports of a conventional body lose much of their interest to the members in attendance if not published promptly, and an editor feels much reluctance in giving his readers a stale report, when, perhaps, his correspondence files are crowded with communications of recent date.

By all means, organize district societies and call Conventions, then let every bee-keeper within their circuit make an effort to attend. If one bee-keeper is more successful than another, he is under a moral obligation to attend his Convention and instruct his co-workers; if he is less successful than they, he is under a pecuniary obligation to himself to attend and be educated. Leave all personal differences to be settled outside the Convention, and all work with a zeal to make it a pleasant, successful and profitable gathering.

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Wisconsin Law against Adulteration.

Mr. F. Wilcox has sent us the following questions:

I append hereto a copy of our law in relation to the adulteration of food. What do you think of it; can it be enforced?

Bees that are being wintered on the summer stands are in very bad condition (mostly dead), unless well protected. Those in cellars are in good condition, but need a flight soon. The weather is very cold yet, and little or no bare ground.. We must wait another month before we can accurately tell how bees have wintered.

Mauston, Wis., April 2, 1881.

CHAPTER 40.

AN ACT in relation to the adulteration of food.

The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:

Section 1. Every person, company or corporation who shall manufacture, sell or offer for sale any article in imitation of butter which has been manufactured wholly or in part from tallow, shall mark each firkin, tub, package or parcel, on top of same, in letters of not less than one-half inch in length, and breadth in proportion, and in such manner that it may be plainly seen, the word "oleomargarine." If made wholly or partially from lard, each firkin, tub, parcel or package shall be marked "butterine" in large letters, as above required.

Sec. 2. Every person, company or corporation who shall sell, or offer for sale, honey, or any imitation of honey which is adulterated with glucose, or any other substance, shall mark the package or parcel with the words "adulterated honey," as required by section one of this act.

Sec. 3. Any person, company or corporation that manufactures or offers for sale cheese that has been made in part of oleomargarine, or where anti-huff or any other substance has been used to adulterate the same, shall mark each cheese as required by section one of this act, with the name of the article or articles used in adulterating the same.

Sec. 4. Any person found guilty of any violation of this act shall for each offense be punished by imprisonment in the county jail, not less than ten days nor more than six months, or by a fine of not less than ten dollars nor more than one hundred dollars, or both, in the discretion of the court.

Sec. 5. One-half of all fines imposed by the enforcement of this act shall be paid to the person who informs against and prosecutes such offender to conviction.

Sec. 6. All acts or parts of acts conflicting with the provisions of this act are hereby repealed.

Sec. 7. This act shall take effect and be in force from and after its passage and publication.

Approved March 3, 1881.

Another dead-letter, we fear. It is not made the especial duty of any officer to prosecute offenders, nor is the tribunal designated which shall have cognizance in such cases. Again, there is a fatal omission of the nature of testimony which shall be required to secure conviction, and statutory as well as common law pre-supposes every offender to be innocent until *proven* guilty. As in Kentucky, the real difficulty will be to *prove* the existence of the fraud to the satisfaction of the jury.

But we are glad to see that the law has passed, even though it should prove inoperative. It is a strong evidence that the people are awakening from their lethargy and demanding reform. The abuses are so great that it seems difficult to check them, but the next legislature can amend the law to make it effective, if the honest producers and consumers combine in requiring it.

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The National Convention.

We have received for publication the following letter from the President of the North American Bee-Keepers' Society, in reply to Prof. Cook's open letter published in the Weekly BEE JOURNAL of March 23d, page 92:

Smith's Grove, Ky., April 1, 1881.

PROF. A. J. COOK: *Dear Sir:* I have read with much interest your suggestions to the Executive Committee, through me, to fix the time of holding the North American Bee-Keepers' Convention, at Lexington, Ky., on Wednesday and Thursday, Aug. 24 and 25—the week after the American Association for the Advancement of Science meets at Cincinnati, O.

It seems to me that would be a favorable time for holding the Convention, but our Association is so extensive, embracing, as it does, the whole of North America, it is difficult to decide the best time for holding the Convention. I thank you, sir, for the interest you manifest in the Convention, and will be glad to receive suggestions from other Vice Presidents and bee-keepers generally who feel an interest in the matter. The reduction of railroad rates will have much to do with the number attending the meeting. In October the Louisville and Cincinnati Expositions arrange for reduced rates, and members passing through could get the benefit of the reduction. But, as you state, we might be able to get the commutation of railroad fares to extend to the meeting at Lexington. We hope to have a very large attendance, and the most interesting meeting that has ever been held by the bee-keepers of North America.

As soon as the Executive Committee can determine on the time, it will be made known through the bee papers. Meantime, I hope to hear by letters or postal cards from the interested bee-keepers, expressing their preferences, with reasons, for the time of holding the next Convention.

Very truly yours, N. P. ALLEN.

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☞ The Semi-Annual meeting of the Champlain Valley Bee-Keepers' Association will be held at Bristol, Addison Co., Vt., May 19, 1881.

T. BROOKINS, *Sec.*

SELECTIONS FROM OUR LETTER BOX

Italian Bees Superior.—Bees are doing well here this season. Swarming commenced March 30; they are storing honey in boxes, which are half full now. I had 40 colonies last fall and lost none in the winter; and none were even queenless. They are all Italian bees. Native bees are a failure as compared with the Italians, as I have demonstrated during the past 4 years.

B. C. YATES.

Weatherford, Tex., April 3, 1881.

Box Hives no better than Others.—My bees are all dead; they died of cholera. They have died at a very fair rate in the old reliable box hive, so the "I told you so's" have to take a back seat, as the scientific apiarist has not killed his bees this time. W. P. EVRITT.

Davis, Mich., April 5, 1881.

A Little Discouraged.—Nine-tenths of all the bees in this part of Ohio are dead; in fact there are hardly any left. Of those remaining, the greater portion are in box hives, unprotected. What is the cause of that singularity? I had mine packed according to Prof. Cook's theory, and all but a few perished, and they are very weak. All left plenty of honey in the hive, and all had the dysentery. I have about 400 frames of comb, the greater part of which have some honey nicely capped, and I want to save them for future use. 1. How can I protect them from the moth? 2. Should I extract the honey from them? 3. Is there any advantage in feeding weak colonies when there is plenty of honey in the hive? 4. Why do not some of the more successful bee-keepers give to the public, through the BEE JOURNAL, their mode of wintering? I have reason to feel a little discouraged. The JOURNAL is a welcome visitor.

L. Z. LANTZ.

West Liberty, O., April 4, 1881.

[We presume, when a final balance-sheet is struck, you will find the box-hive bees have fared no better, if as well as those in approved hives.

1. By placing them in tight hives, closing the entrances tightly, spreading papers on the top projecting beyond the hives, fitting the covers on nicely, then putting them in a cool room.

2. Yes; we prefer giving them empty, one or two at a time.

3. No; it is injurious. If you wish to stimulate breeding, give each day a little honey and water, in equal parts, at the entrance. A Shuck feeder is very good for this purpose.

4. Nearly every number of the JOURNAL contains letters from successful bee-keepers, giving their methods of wintering.—ED.]

A Confinement of 148 Days.—This has been a most disastrous winter for bees, so far, and the end is not yet. The weather to-day is more like December than spring. Nine-tenths of the bees that were not well protected have died, and the other tenth will probably die if they are not fed. Bees that are well cared for have fared better. I have 3 colonies in the cellar and one on their summer stand, packed in chaff. They had a flight on March 26, after a confinement of 148 days. We had no surplus honey nor increase last year but I look for an abundant yield this season. I am located 1¼ miles south of a grove of linden of from 1,500 to 2,000 trees, from 6 inches to 3 feet in diameter, will my bees go there for honey? They are blacks and hybrids. I want to Italianize in the spring. I find that nearly all of my neighbor bee-keepers that do not take a bee paper are the heaviest losers in bees. Success to the Weekly BEE JOURNAL.

L. W. WREN.

West Branch, Iowa, April 4, 1881.

Spring Prospects.—We are having a late and backward spring. Bees are housed up nearly all the time, and are making slow progress. Plums and peaches are nearly a month later in blooming than usual, and so far have been but little benefit to the bees. Cool weather still refuses to let loose, despite the prophets, but hope points just ahead to genial springtime. The Weekly is a success. "Onward" be its motto.

S. D. MCLEAN.

Culleoka, Tenn., April 1, 1881.

Cold in Kentucky.—This is a very cold day for April 1st. Snow has been falling for 48 hours. but melting as it fell. The ground is now frozen and the wind is blowing strong from the north. Bees are in bad condition except where well protected. Mine are all right yet with their chaff cushions, and have plenty of stores. I lost but 1 colony out of 40, and that was a late artificial swarm. I hope for a good honey yield and a prosperous season. Fruit blossoms are ready to open the first warm days, and the white clover is very promising.

N. P. ALLEN.

Smith's Grove, Ky., April 1, 1881.

Loss of Bees.—This has been a very hard winter on bees in this locality. Mine were confined to their hives from October 16 till March 13. The weather is still cold and winter holds on. I think about ⅔ will be lost by April 15.

GEO. GARLICK.

Warsaw, Ont., April 1, 1881.

Bees in Fair Condition.—Bees in this vicinity that were wintered out-of-doors are under snow banks some 8 feet deep, and still the snow is coming. The banks cover the tops of the fences in many places and we can drive over a 4-board fence without taking down the fence. My bees have the dysentery, but I gave them a flight on March 18. I left 50 colonies out all night as it was a fair day, but the morning of the 19th soon turned out to be one of the worst blizzards we have had this winter. I succeeded in putting my bees all back in the cellar by calling up the neighbors to help; it became a perfect gale before we got them all in. They now seem to be ready for another nap. In my bee yard the snow is from 3 to 8 ft. deep, a splendid time to trim fruit trees as we need no ladder.

D. G. WEBSTER.

Parks Corners, Ill., April 4, 1881.

Safely Wintered.—My bees are in excellent condition this spring, considering the severe winter they have passed through. Last fall I had 8 colonies, all hybrids. I prepared 5 for winter by reducing to 3 and 4 frames each, with division boards placed on each side of the brood nest; each hive having about 10 or 12 lbs. of honey; size of frame 11¼x 11½, they are now in good condition with brood in all stages. The 3 colonies I had in 2 story hives I prepared for winter by taking off the top sections and leaving the bottom section with the 8 frames, full of honey (about 35 lbs.) in each hive. One warm day about the middle of January, when other colonies were lively and flying, they did not make any show. Upon examination I found every bee dead and not a drop of honey in either of the 3 hives. I was rather surprised at this loss, and examined one of them and found that they had plenty of stores and very few dead bees; all wintered on their summer stands. I do not use chaff-packing or lime (the lime is new to me) as I can have good results without them, and it is a big job to prepare a number of colonies for winter. With the hive properly adjusted with division boards inside, a space of 6 or 8 inches from the division board to end of hive, a thick cotton quilt on top of frames to absorb moisture and a few thicknesses of paper on the quilt to prevent the escape of heat, they are in an excellent condition to stand a zero freeze, as my 5 colonies have proven to be at this time. The 3 that starved had more space and honey than they required, and consumed honey to keep warm on the same principle that a small stove requires a great amount of wood to keep a large room warm. The great loss of bees this winter seems to be a puzzle to many, but when properly examined is very simple and natural; the bees have died from old age more than anything else, as very few bees were reared last fall. During the months of August. September and October we had very warm, dry weather and no honey in the few flowers that did bloom, and when honey ceases coming into the hive the queen almost stops depositing eggs, even when they have plenty of stores for winter, and the majority of the bees being old, they were in poor condition to pull through a long, cold winter such as we have had. As all old animals require more nourishment to keep up a given temperature than young animals under the same circumstances, and very few young bees being reared during severe cold weather to keep up the colony the natural consequence is death, with plenty of stores around them. These are my ideas on the great loss of bees this winter. Shall be very glad to hear from others on the same subject, as a change of ideas brings out the truth.

J. S. DUNCAN.

Browning, Mo., April 4, 1881.

The Dying and the Dead.—About ⅓ of all the bees in this county last fall have now gone "where the woodbine twineth," and this month with next will certainly bring this up to ½. I have lost but one in 137 as yet, but am fearful that by the first of June I shall tell a different story as to losses for the whole season. N. F. CASE.

Glensdale, N. Y., April 4, 1881.

Loss of Bees in Northern Michigan.—I have made some inquiries and have so far to report the loss of 604 out of 933 colonies in this section of the country. This will not fully cover the loss; the present cold weather will reduce the 600 about as much as the "Noble Six Hundred" we read of.

L. C. WHITING.

East Saginaw, Mich., April 5, 1881.

Bees In Middle Tennessee.—I like the Weekly BEE JOURNAL. It has been raining and snowing all day here, in middle Tennessee. Yesterday was a beautiful, pleasant, spring-like day. Peaches and plums are in bloom. Bees were working like beavers; to-day all are frozen up. If we could have 10 warm days our bees would be safe. I have rye-meal, honey and sugar. I put into winter quarters 8 colonies in Langstroth hives; lost only one, which was short of stores and came out in February and ran off. I wintered on the summer stands, sheltered and packed down with cotton seeds and mats; I packed underneath the hives with sawdust. There is only one requisite here in wintering bees and that is to have plenty of stores and to keep them dry. This has been a remarkably hard winter; many of the late swarms in box and gum hives have starved. This is a very trying snap on bees. I saw some apiarist from Indiana here trying to buy up native bees. I. A. BURROW, M. D.

Santa Fe, Tenn., March 29, 1881.

Losses.—I congratulate the editor on the success of the Weekly. If I get it in the morning I cannot stop till I scan it all over. My pets, I fear, will all die. Out of 33 only 11 survive; one is queenless but strong in bees and honey. My beautiful Italian which I found nearly dead and put in a queenless colony is gone with all in the colony. One I covered with 2 thicknesses of wool carpet did well till March, and died with plenty of honey. We have snow with north winds now. I fear more will be dead when this breaks up. Those I wintered in the shed fared better than those out. Some lose ½; some all.

G. W. ASHBY.

Valley Station, Ky., April 2, 1881.

Upward Ventilation.—As there have been so many conflicting reports in regard to bees wintering the past winter, I thought I would mention a circumstance that came under my observation while at a sale a few days ago. There were 6 colonies of bees in box hives and one in an old Langstroth hive. The colonies had all stood out on the summer stands without protection during the winter. The surplus boxes had been emptied last fall and returned to the hives, where they were left on all winter, and although they did not fit very closely and the bees had plenty of upward ventilation, the bees were in good condition. It occurred to my mind that there must be more in upward ventilation than many supposed, for some have died around here that were all packed in chaff, and appeared to be in good condition last fall. I am a strong advocate for chaff-packing, but what is the use of chaff-packing if we can get as good results by having plenty of upward ventilation and a vacant chamber above the bees? J. A. OSBORNE.

Rantoul, Ill., April 6, 1881.

Italians vs. Black Bees.—My bees are mostly blacks and hybrids, and I have lost heavily. I have one colony of Italians which endured the severity of the winter much better than the blacks. I think the Weekly BEE JOURNAL splendid, and am glad that it is a success.

J. A. MCKEE.

Sparta, Ill., March 15, 1881.

Bees in California.—Honey is coming in fast; the bees are working in sections and capping; drones are hatching and flying out. I have kept back swarming by great exertions. I have 20 frames and sections on some, and 2 tiers of sections on others. The bees are building out foundation, and the weather is fine and dry, but the nights are cool. One colony with a hybrid queen had the boxes all capped on the 4th, and has built out several combs of foundation of last year's make. I find that my bees will bite off the bottom and corners to build out drone comb. My colonies are strong in bees and working nicely. A queen 3 years old is the only one I have had superceded. I have grapes and fruit with 60 colonies of bees within a stone's throw; I have observed closely but never found a bee biting the fruit. I had 2 frames of foundation worked out and filled with eggs, pollen and honey in 20 hours.

J. D. ENAS.

Napa, Cal., March 30, 1881.

My Plan of Wintering.—My bees are in fine condition on their summer stands, notwithstanding the very cold winter. I use the Quinby hive. The plan that I have adopted for wintering for the last 3 years is to take off the cap and honey board, put 3 sticks across the frames, then a quilt over the frames, then old carpeting (or some other porous article) and keep warm and dry; after which I place a rough box with from 2 to 4 inches of air-space all around the hive, with an entrance the same as in the hive. In this way I have succeeded for 3 winters with the loss of but one colony. They had a good flight in February and also in March. I shall have to feed some now. Last season was a poor one for honey. There are comparatively but few bees in this vicinity; they have wintered fairly well. I very highly prize the Weekly BEE JOURNAL. EDEN DAVIS.

Thompson, Conn., April 5, 1881.

Bees in Vermont.—We have had about 90 days of uninterrupted sleighing. Bees here that were properly cared for and put into cellars are, as far as I can learn, in good condition. I had 3 colonies that exhibited signs of dysentery, but had the good fortune to be able to give them a flight early in February, and they are all right now. I hope to come out without loss. During the past two years my average has been about 25 lbs. of extracted honey per colony; this sells readily for 1 shilling per lb., put up in quart fruit jars. Are tin pails a good receptacle for honey? Is not the cheap tinware adulterated with lead? and would not honey put up in such packages be injurious to the health of the consumer? W. S. CLARK.

Bellows Falls, Vt.

[Tin pails, which can be utilized in the house after the honey is used, make good receptacles. Only soured honey, we think, would be liable to absorb lead poison from adulterated tin.—ED.]

Great Loss of Bees.—Never before in the recollection of bee-keepers have bees become so nearly extinct as now in our vicinity. Last fall no less than 300 colonies of the useful pets decorated the yards of our neighbors. At this date about 292 colonies are no more. Very little attention was given to the little fellows. Out of 30 extra colonies I have but one colony remaining to mourn the loss of their industrious neighbors. E. J. HINSHAW.
Lynn, Ind., April 1, 1881.

Bees Confined 134 Days.—I am wintering 170 colonies of bees. The greater part of them are in the cellar and are doing well. They have not seen daylight for 134 days, and are not likely to for several days to come, as it has been snowing steadily for the last 60 hours. Sleighing is pretty fair here and the snow is at least 20 inches deep where not drifted, and the drifts are from 2 to 6 feet high. What is the correct pronunciation of the name Dzierzon ?
S. F. NEWMAN.
Norwalk, O., March 31, 1881.

[It is pronounced thus : "Tseerson."—ED.]

Colonies Strong.—I put 59 colonies of bees in the cellar ; 4 of which were made late of nuclei ; I lost 2 of them ; the balance consumed about 5 lbs. per colony while in the cellar. They are now stronger than ever before at this time of the year. MOLLIE O. LARGE.
Millersville, March 29, 1881.

Shall I Transfer or Drive Them ?—I bought at a sale a few days ago 2 colonies of black bees, one in an old gum and the other in an old box hive. The combs look very black and old. Which is the better plan, to transfer, or drive into a new hive filled with foundation, and Italianize in either case ? Please answer in next issue of BEE JOURNAL.
W. R. YOUNG.
Myersville, Md., March 29, 1881.

[Transfer, by all means. You will need the brood in the old combs (which would be lost in the case of driving) as fast as hatched to nurse the Italian brood, it being the especial province of the younger bees to do the nursing and other drudge work in the hive. It is an easy matter, as the season advances, to work the old combs out, by putting in a sheet of foundation every few days in the centre of the brood nest, crowding the old combs to the outside, and lifting out as fast as emptied of brood.—ED.]

Heavy Loss in Bees.—Bees are nearly all dead in this locality ; one who had 24 colonies last fall has 3 left ; another with 10, has 2 ; another with 30, has 5 or 6 ; while others having 1 to 10, are all dead. I have 2 out of 20, but cannot do without the Weekly BEE JOURNAL. "Long may it live."
M. F. EASTMAN.
Queensville, Ind., April 2, 1881.

Bees in Good Condition.—I am well pleased with the Weekly BEE JOURNAL. My bees have come through the winter in good condition. I had them packed in chaff on the summer stands. Bees left unprotected are, I think, about half dead in this locality. I lost all my bees 2 years ago, by wintering without protection. After losing all I bought more and wintered in the cellar with success. I like packing in chaff the best ; they come through in better condition. Success to the AMERICAN BEE JOURNAL.
Boswell, Ind. J. H. MCDANIEL.

Bees Confined 6 Months. — March bade us "adieu" with a regular "howler" from the northwest, and 10° below zero. Snow in the timber is about 2 feet deep ; bees have been confined since the middle of Oct.; ice in the lake is 3 feet thick. The way things now look bees will be confined to their hives 6 months. What do they think of that "down south" complaining of long confinement ; while their bees are at work on the clover and fruit blossoms, up here they are as still as death ? This winter has been a terror, and if the Palestine bees are proof against death from cold, I want them. I do not wish to complain, for my bees, 76 colonies, are all right, and bright as you wish to see. The hives are clean and they show no signs of disease. I winter in-doors, in a house made of logs arched over and covered with earth ; it has a door in one end and ventilators ; it is the best thing I have tried. When I get them out for good I will report their condition, etc. M. S. SNOW.
Osakis, Minn., April 1, 1881.

Sawdust for Wintering.—Thus far I have lost nearly ⅓ of my bees. The greater part were packed in chaff and cut straw, in November ; the remainder were put in a sawdust cellar and taken out on warm days this month and packed. For a winter like this a cellar for winter and packing for spring is, in my opinion, the best ; but deliver me from bees in a sawdust cellar in a warm winter. JOEL GULICK.
St. Charles, Mich., March 30, 1881.

Wants the Plan.—I should be glad if Mr. Robinson, of Pewamo, Mich., would give his plan in detail for wintering queens on one comb. I think it of great importance. I am much pleased with the Weekly BEE JOURNAL, and wish it success.
GEO. REYNOLDS.
St. Neots, England, March 15, 1881.

[Will Mr. Robinson please comply with this request ?—ED.]

Bees Dead.—Most of the bees around here are dead. I have lost 4 colonies out of 14, and I expect to lose 1 or 2 more, for it is quite cold yet. I think the BEE JOURNAL the best exponent of scientific bee-culture in America.
L. H. WESTPHAL.
Brighton, Mich., March 31, 1881.

A Strange Occurrence.—I have a curious circumstance to relate, and would like to know if it is of common occurrence. Last spring I had a queenless colony, but with a queen cell nearly ready to cap over. One noon I found an adjoining colony about to swarm, and cutting out the queen cell, took it in the house, broke it open, and found a fully-matured queen, smart and lively. I conceived the idea of giving it to the queenless colony, and for that purpose took a small mug, put the queen into it with a few drops of honey, put two thicknesses of common mosquito cloth over the mug, a stick through the handle, and hung it in the queenless hive. Returning at 4 o'clock, I opened the hive and found the bees had liberated the queen, had manufactured about two square inches of comb on the stick that the mug hung on, and in nearly every cell was from 1 to 3 eggs, and the queen not out of her cell to exceed 5 hours. Is this not a peculiar instance ?
J. H. COOK.
Parsons, Kans., April 1, 1881.

[It is too peculiar to be possible. The bees may have swarmed from the hive alongside and taken possession of the one in which you confined the queen, or they may have had a queen when you put her in, or there may have been a fertile worker—anything is quite as probable as that a queen would be laying eggs within five hours after emerging from the cell.—ED.]

Chaff Packing Ahead.—Last fall I had 10 colonies of bees (4 in chaff hives and 6 in simplicity) all strong. The first Sunday in December was pleasant and the bees had a jollification, after which there was not a day that they could safely leave the hive until March 15 and 16, when they had a good flight, which they very much needed. I have 7 left : 4 strong (in chaff hives) with brood ; 2 comparatively strong, and one rather weak, being what was left of 2 colonies that had dysentery. All wintered on the summer stands. I think chaff hives would have saved this loss. The ground is now bare and frozen and we have had cold northwest winds for 3 days. As far as I have been able to learn, the loss has not been heavy in this section. The Weekly is a positive necessity. May it "live long and prosper."
P. F. TWITCHELL.
Andover, O., March 28, 1881.

Bees and Grapes.—I noticed an article in the BEE JOURNAL for March 2d, page 68, in regard to bees and grapes. I have had both for over 10 years in one yard ; the bees never troubled my grapes, and I have the Isabella, Concord, Delaware and Augustine, and 40 colonies of bees ; bees are not over 10 rods from grapes. My bees are in the cellar yet, but do not yet know how they will come through.
THOS. PIERCE.
Gansevoort, N. Y., March 21, 1881.

Chaff Did It. — I commenced the spring of 1880 with 8 colonies of bees. I obtained 400 lbs. of honey, mostly extracted, and increased to 28 colonies. I sold one last fall and packed 27 in chaff; they are all alive up to date, 5 are rather weak, the balance are in good condition. About ⅓ of the bees in this part of the country are dead.
C. H. WRIGHT.
Conneautville, Pa., April 2, 1881.

Are Bees Taxable ?—1. I have a good deal of honey in old comb taken from box hives, with considerable bee-bread, and this honey is quite bitter in flavor—will it do to place over the brood frames to feed with ? Some of the honey I think is sour.

2. Can I use old strained honey that has pollen in it to stimulate the queens ?

3. I had bees starve with sugar candy over the cluster, but not a cell of honey. The candy was very hard—was that the reason they could not eat it ?

4. Can bees be taxed the same as other property ? A. G. MAYHEW.

[1. The bitter honey will answer to feed over the frames. If soured, feed outside the hives, when the bees are flying freely, thus leaving it optional with them to take it or let it alone.

2. Yes.

3. Perhaps it was.

4. Yes, as other personal property. The statutes in different States vary somewhat in regard to taxable personal property.—ED.]

Bees Gone to Rest.—My bees did well last season, considering the small supply of nectar yielded by the flowers. White clover and basswood, from whence we get our greatest supply, was a total failure, and our bees did not get much until fall. Our fall crop was fair. I started in the spring with 14 colonies, increased to 22 and obtained 700 lbs. of comb honey in nice shape. I packed part of my bees in chaff and the rest I covered with straw to the depth of 2 feet, except on the fronts, which I covered first with a board set slanting against the hive, then a little straw over that. However, they were not prepared in this way until the last of November, with the thermometer at 20° above zero, owing to my having been away to school for 3 months. They were very strong and had plenty of honey as near as I could ascertain. But alas ! when I examined them on March 5, I found all quiet, after having been confined for about 125 days ; there were none short of stores, but the hives were daubed badly, showing that long confinement was the principal cause. Many lost ½; some ⅔, and others all. I think ⅔ of the bees in this section have died, but I am not discouraged. I shall start anew if there are any bees to be had. Mr. Editor, do you not think the reason for bees not swarming last season was on account of a forewarning of this cold winter ? Success to the Weekly BEE JOURNAL. A. B. LOOMIS.
Carson City, Mich., March 4, 1881.

[No ; bees have no forewarnings any more than has humanity. The conditions were not right for swarming, either from want of honey-flow, or from an absence of sealed brood, threatening crowded colonies in the hive.—ED.]

Honey As Food.—We have just been baking honey ginger snaps, "a la Newman," as given in "Honey as Food and Medicine." We are puzzled to know how one person can embody all the requisites for an Editor, Doctor and Cook, and a Minister, too, by the way he quotes Scripture in this valuable little work. Perhaps he has a help-meet—as the Irishman says, "sure and hasn't he a wife ?" Honey producers should always place honey before their guests, take it to fairs, ministers' donations, festivals, sociables, excursions, old settlers' picnics, etc., use it in the dressing and canning of fruits, and teach the people, by precept and example, that honey is good. MRS. L. HARRISON.
Peoria, Ill., April 4, 1881,

First Swarm.—Last season was very severe on bees in our State. We had rain from April until December 31, almost every day. The moth worm and the scarcity of honey in the flowers caused us to lose 25 out of 38 colonies. Our bees have been working well since the first of this month. We had a natural swarm this morning from hybrids ; we put them in a Langstroth hive ; they appear to be all right. Success to your Weekly. W. R. & F. P. THOMPSON.
New Iberia, La., March 31, 1881.

Took The Bees Out.—I have put my bees out on their summer stands. I lost 8 out of 46. I had them in a room above ground ; they are out of honey now, so I must feed them, though it is cold and I fear it will injure the bees some. A word to all : see if your bees have enough honey. FAYETTE LEE.
Cokato, Minn., April 1, 1881.

☞ The Southwestern Wisconsin Bee-Keepers' Association will meet at the residence of W. B. Wallis, at Darlington, Wednesday, May 11, 1881, at 10 a.m.

There will be an opportunity given for questions and answers. Interesting papers will be read, among which may be mentioned :
Location of Apiary, by E. France.
Implements of the Apiary, by R. D. Wilson.
Feeding Extracted Honey to Produce Comb Honey, by Dr. C. Abraham.
Foundation, and its Advantages, by D. R. Sylvester.
Bee Forage, by H. Gilmore.
Preparation for Winter, by George Fox.
Wintering Bees, by Reese Powell.
Advantage in Preparing Papers, by E. France.
Profitable Bee-Keeping, by E. Pike.
Bee-Keeping, will it Pay ? by N. E. France.
The Prize Essay of the N. E. Convention, on How to make the Apiary the most Profitable, by George W. House, of Fayetteville, N. Y.
A cordial invitation is given to all.
N. E. FRANCE, Sec., Platteville, Wis.

☞ The Michigan Bee-Keepers' Association will convene in Pioneer Rooms of the State Capitol at Lansing, May 5. The following is the programme :

Regular order of business.
Annual address by Pres. W. J. Ashworth.
Address by T. G. Newman, editor of American Bee Journal ; subject, Rise, Progress, Present Condition and Future Prospects of American Apiculture.
Essay—Profitable extent of bee-keeping, by James Heddon, Dowagiac.
Essay—Requisites of an Apiary, by H. A. Burch, South Haven.
Essay—Some important facts in bee-keeping, by Prof. A. J. Cook, Michigan Agricultural College.
Discussions and remarks.
Examination of exhibits.
All exhibitors of supplies are requested to send samples to the Secretary, with prices and descriptions attached, and all transportation charges must be prepaid by the exhibitors. GEO. L. PERRY, *Sec.*

☞ Programme of the Northwestern Bee-Keepers' Union, to be held at Hastings, Minn., May 17, 1881 :

1.—Address of Welcome, by J. N. Searls.
2.—Reports of committees.
3.—Reports from all—number, kind and condition of bees.
4.—A paper by Pres. A. Tidball, on honey-producing plants and flowers.
5.—A paper by Dr. P. Barton, of St. Paul, on honey as food and medicine.
6.—Apiary culture and our fairs, by Hon. William Avery, of St. Croix Falls, Wis.
7.—A paper on sales of honey, by F. B. Dorothy, of Taylor's Falls, Minn.
8.—A paper on wintering bees, by L. Day, of Farmington.
9.—Progressive bee-culture, by J. G. Teter.
The above subjects will be open for discussion. In addition to the above, the following subjects are suggested :
1.—Essential properties of a good bee hive.
2.—How to prevent and cure foul brood.
3.—How to prevent spring dwindling.
4.—Comb Foundation, with dividing and natural swarming.
Appointment of committees.
Election of officers. Adjournment.
☞ All bee-keepers are cordially invited. Entertainment free. F. B. DOROTHY, *Sec.*

☞ The North Western Wisconsin Bee-keepers Association will meet at Germania Hall, LaCrosse, Wis., on Tuesday, May 10, at 10 a. m. All interested in bee-keeping are requested to be present. L. H. PAMMEL, JR., *Sec.*

SPECIAL NOTICES.

☞Single copies of the JOURNAL are sent postage paid for 5 cents each.

◆

☞Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

☞ We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

◆

☞ Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

◆

☞Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

◆

Gray Hairs Are Honorable but their premature appearance is annoying. Parker's Hair Balsam is popular for cleanliness and promptly restoring the youthful color.

◆

☞ The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

◆

PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

◆

☞At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

◆

☞ Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

☞ It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

☞We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

◆

☞Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

☞ The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

◆

☞When changing a postoffice address, mention the *old* address as well as the new one.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Apr. 13—N. W. Missouri, at St. Joseph, Mo.
D. G. Parker, Pres., St. Joseph, Mo.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
10—N. W. Wisconsin, at LaCrosse, Wis.
L. H. Pammel, Sec.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
12, 13—Texas Bee-Keepers' Association, at McKinney, Collin Co., Texas.
W. R. Howard, Sec., Kingston, Hunt Co., Tex.
17—N. W. Ill. and S. W. Wis., at H. W. Lee's, Pecatonica, Ill. J. Stewart, Sec.
17—N. W. Union, at Hastings, Minn.
F. B. Dorothy, Sec.
19—Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.
Sept.——National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 12—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

◆

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A. I. Root)	3 00	2 75
Bee-Keepers' Magazine (A. J. King)	3 00	2 60
Bee-Keepers' Exchange (J. H. Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W. Thomas)	2 50	2 35
Bee-Keepers' Guide (A. G. Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T. G. Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

◆

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 18@20c. for strictly choice white comb in 1 and 2 lb. boxes; at 14@16c. for fair to good in large packages, and at 10@12c. for common dark-colored and broken lots. Extracted, 8@10c.

BEESWAX.—Choice yellow, 20@23c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 14@16c.; fair do., 14@16c.; dark do., 11@12; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 80@85c.

BEESWAX.—Prime quality, 20@23c.

CINCINNATI.

HONEY.—The market for extracted clover honey is good, at 8@10c. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY.—Since our last there have been some 1,000 cases more of extracted honey cleared for Liverpool, and at our last the outlook for the coming crop was very poor. Since, there have been copious showers, and reports are generally more favorable. We quote white comb, 12@13c.; dark to good, 9@11c. Extracted, choice to extra white, 5½@6½c.; dark and candied, 5@5½c.

BEESWAX—22@22½c., as to color.

STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., March 31, 1881.

◆

A Smooth Complexion can be had by every lady who will use Parker's Ginger Tonic. For promptly regulating the liver and kidneys and purifying the blood there is nothing like it, and this is the reason why it so quickly removes pimples and gives a rosy bloom to the cheek. See notice.

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SEED
CATALOGUE.

My Annual Catalogue of Vegetable and Flower Seed for 1881, rich in engravings from photographs of the originals, will be sent FREE to all who apply. My old customers need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any Seed House in America, a large portion of which were grown on my six seed farms. *Full directions for cultivation on each package.* All seed *warranted to be both fresh* and *true to name*, so far, that should it prove otherwise, *I will refill the order gratis.* The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn, and scores of other vegetables. I invite the patronage of *all who are anxious to have their seed directly from the grower, fresh, true*, and *of the very best strain.*

NEW VEGETABLES A SPECIALTY.

12m5 JAMES J. H. GREGORY, Marblehead, Mass.

HONEY WANTED.—I desire to purchase several barrels of dark extracted honey, and a few of light; also, Comb Honey. Those having any for sale are invited to correspond, giving particulars.

ALFRED H. NEWMAN
972 West Madison street, CHICAGO ILL.

Wire Nails.

There being considerable demand for wire nails, I have concluded to carry a stock of them, and can fill orders for any quantity promptly. For nailing Sections, Cases, Frames, Racks, Crates, &c., they have become quite popular.

The entire length of the nail being the same thickness, they never loosen as ordinary iron nails will, and are not as liable to bend or break.

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⅞ "	" 17,	" .... 18c.
1 "	" 17,	" .... 18c.
1⅛ "	" 16,	" .... 16c.
1¼ "	" 16,	" .... 16c.
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2 "	" 15,	" .... 14c.

If wanted by mail add 18 cents per lb. for postage.

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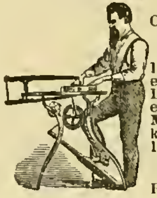

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Hand, Circular Rip Saws for general heavy and light ripping. Lathes, &c. These machines are especially adapted to **Hive Making.** It will pay every bee-keeper to send for our 48 page Illustrated Catalogue.

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SEEDS FOR HONEY PLANTS

A full variety of all kinds, including Melilot, Alsike and White Clover, Mammoth Mignonette, &c. For prices and instructions for planting, see my Illustrated Catalogue,—sent free upon application.

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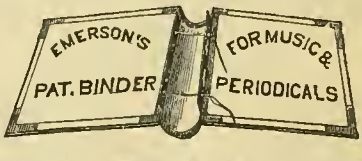

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☞ The next meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held at H. W. Lee's, 2 miles n.w. of Pecatonica, Winnebago county, Ills., on the 17th of May, 1881.
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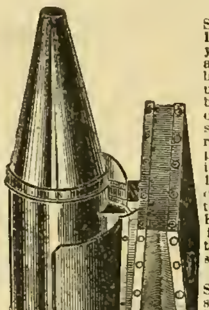

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DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., APRIL 20, 1881. No. 16.

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CORRESPONDENCE.

For the American Bee Journal.

The Lessons from our Losses.

EUGENE SECOR.

On Nov. 5 I put my bees in the house cellar, used as most house cellars are for storing vegetables, apples, soup-barrels, etc. To-day I have removed them to their summer stands, making 153 days, or a little over 5 months, constant confinement. I found 6 dead out of 22 put away in the fall. The conditions favorable to successful wintering were: total darkness, freedom from frost when put away, a frost-proof cellar, good ripe honey in the hives and comparative quiet during the winter.

Unfavorable: cellar probably too warm at times, slight disturbances by going in with a light for vegetables, and lack of proper ventilation.

The fatality among the bees in this neighborhood is almost unprecedented; one party is said to have lost 78 out of 80 (out-doors); another all (in cellar); another 50 per cent., in cellar; all were experienced bee-men. Nearly all others' bees are dead. I estimate that 80 per cent. of all bees within the range of my knowledge are free from the toils of the clover field. Have we learned anything from this severe experience? Many, I believe, have not, they think it is all luck anyhow. Others know better than practice. Hence losses are likely to continue to occur, and the market will never be overstocked unless the enterprising grocer with his glucose pot comes to the rescue of the over-worked bee.

I indorse what Mr. Doolittle says in the BEE JOURNAL of April 6 in relation to confinement and dysentery. I regard him as sound on this question, as on any other which he discusses. What bees I lost died of dysentery and had they been confined 30 days longer undoubtedly another 30 per cent would have gone the same way, while if the weather had permitted a flight in February I think nearly all would have lived.

We had at least 4 months in which a bee could not have lived a minute away from the hive. If out-of-doors the necessity of a flight being increased by the increased amount of honey consumed, death was almost sure. The same in cellars if the proper conditions were not present—even and suitable temperature, perfect darkness and quiet, and ripe honey. With these the little pets will stand a long siege from old Boreas.

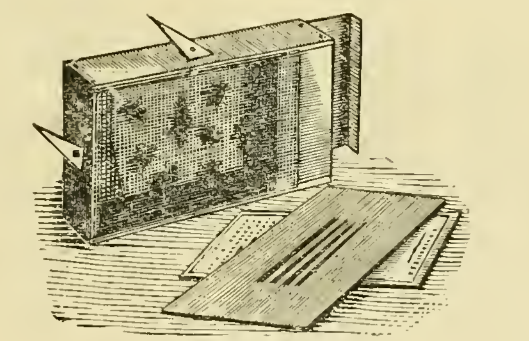
Forest City, Iowa, April 8, 1881.

For the American Bee Journal.

The Italian not a Pure Race.

G. W. DEMAREE.

It seems a little strange that it has not occurred to some of our brother bee-keepers that their discussion of the merits of the light and dark "strains" of the Italian honey bee furnishes all the evidence necessary to prove them a mixed race of bees.



PEET'S QUEEN CAGE.

If there are two or more varieties of the Italian honey bee it is impossible that the race as a whole can be pure. The idea of two or more varieties existing in any one thing promiscuously, and still the thing be pure and unmixed, is the height of absurdity. We are tempted to ask, what is meant by the dark and light strains of the Italian? and, at what point is the dividing line to be fixed? My experience is that there are about as many different shades of color (if nicely drawn), as there are colonies of Italians. The general appearance may be the same in some colonies, but upon a close examination in all their parts a difference is discernable. You may select an imported queen and rear daughters from her and some of her progeny will be darker than others. Now if you select the lightest one amongst them and breed from her, carefully continuing the selection, it is possible to reach the beautiful type known as "Albinos," while on the other hand, by the same careful selection of the darkest bees to breed from, you can breed every tint of yellow out of them. What does this teach, if not that the race is a hybrid or cross? Such results as I have named (though put in a more moderate form) would be simply impossible if the race was pure. If you will try your skill on the German or common bee you will find that no amount of selection will give any perceivable change in their appearance. Therefore, we conclude that the Italian bee is a cross between a pure yellow, quiet race, and a pure black, irritable race of bees, both of which are now unknown except as found promiscuously in the Italian variety.

Perhaps it is the happy combination of these two races that gives the Italian its peculiar value, and when we have ascertained what proportion of blood of these two races when combined gives the best results, and have bred our bees up to that standard, we will have perfected Mr. Newman's *Apis Americana*. It seems to be conceded on every hand that the Italian race becomes lighter in color simply by being imported to, and multiplied in this country. For one, I do not believe this. If they are bred promiscuously, *i. e.*, without selection as to color, there is no reason why the result in this country should be different from what it would be in their native home. Climatic causes work too slow to produce any perceivable effects in a few years of time.

It is careful selection that has given us our beautiful superior bees rather than the purity of the stock from which we have usually made our selections. The readiness and rapidity with which the Italian race or variety will assume new types or "strains" under the manipulating hand of the careful breeder, can be explained on no other hypothesis than that the race is an amalgamation of blood more or less fixed by long seclusion in their native home. It is truly amusing to see the ingenious efforts put forth by some of the advocates of "purity of the race" to evade the force of these conclusions, and counteract the growing tendency to accept them as true. That there are black bees in Italy no one who is willing to trust to his own senses can doubt, unless the vendors of queens in that country have sent all their black bees over here; for all of us have seen black Italians among our imported stock.

Christiansburg, Ky.

For the American Bee Journal.

In-Door Flying for Dysentery.

WM. H. FRANCIS.

An artificial, or in-door flying for dysentery is not entirely new, and yet, notwithstanding the heavy losses reported from all quarters during the past winter, I have seen no account of this remedy having been resorted to, nor have I seen it recommended. I have recently given it a pretty thorough test and for the benefit of bee-keepers hereafter I will give the result.

I commenced bee-keeping last spring and went into winter quarters last fall with 13 colonies. Early in February several of them began to show signs of dysentery. I watched them closely and in 2 or 3 weeks 2 of the hives were so badly soiled around the entrances that I had but little hope of saving them unless a remedy could be found. I searched my bee-books and the only remedy I found was the cage method of giving an in-door flight mentioned in the A B C of Bee-Culture. I made a cheap cage and tried it on the colony that appeared to be in the worst condition, but was not satisfied with the result and abandoned it.

Two or 3 days after this one of my bee-keeping neighbors told me that he had just given 2 or 3 colonies a flight in a small room without a cage, and considered it a success. I had seen the statement in some of my bee-literature that if bees were released from their hive in a room they would not return, but I determined to give it a trial. I therefore selected a small bed-room in the south part of my house through which a stovepipe passes, and having but one window, looking south. After removing the furniture I covered the carpet with newspapers and protected the wall around the window and as much of the window casing as I could in the same manner. The temperature of the room when closed ranged from 60° to 80° F., according to the weather and the quantity of heat furnished from the stove below. Towards noon I carried a hive up and placed it on the floor, about 3 feet from and fronting towards the window. I opened the entrance, removed the cap and covered the frames with a newspaper having an opening 2 or 3 inches in diameter through the centre. The paper was to prevent the bees spotting the hive, and the opening to allow the bees to pass out at the top as well as at the entrance. The result was entirely satisfactory. During the warmest part of the day the roaring of the bees could be heard through all parts of the house. On going into the room towards sunset I found the bees nearly all quieted down in the hive. The few that remained clustered about the window were easily brushed off on a newspaper and returned to the hive. I afterwards found that if brushed from the window upon the floor they would return to the hive themselves.

By this method I have given all my bees a flight, have given them a thorough examination, and they are now all in good condition, apparently able to remain in the cellar if need be until the middle of May.

Why wouldn't it pay every bee-keeper in cold latitudes to have a room for this purpose in connection with his apiary?

A small room would do, and one large window would probably be better than 2 or 3 small ones. A large room to be used for other purposes ordinarily might be so provided with windows that it could be divided by means of cheap temporary partitions into several small rooms, and in this way several colonies could fly at the same time, and thus large as well as small bee-keepers could avail themselves of this remedy whenever necessary.

Such winters as the past are rare, but when they do come thousands of colonies might be saved with but little trouble and expense.

Frankfort, Mich., March 29, 1881.

For the American Bee Journal.

Bee-Keeping in Kentucky.

W. WILLIAMSON.

The general reports throughout Kentucky are very discouraging to bee-keepers in general; in fact the past 2 seasons have been failures. In some localities a few bee-keepers have brought their bees through the present severe winter without loss, owing no doubt to a full supply of honey in the brood chambers, and being fully protected from the cold winter blasts. All should, however, take courage, as the coming season may be one of a bountiful supply of honey and swarms which will amply repay them for the failures of the past. All empty combs should be carefully cleaned off and laid away for future use, as, if brood chambers are filled with these empty combs, and swarms put in them in May, they will often thrive better and store more honey than the parent colony. All colonies should now be fed up (whenever the day is mild) to induce early breeding. A little rye-meal should be placed in convenient places to take the place of pollen. Nothing should be left undone in the early spring that will tend to strengthen and build up weak colonies. It is not necessary to feed honey to bees—a good syrup made of sugar, water, and a little flour, makes excellent feed. It can either be fed as a syrup or made into candy. From all reports that I have been able to obtain, the loss of bees in Kentucky this winter will be fully ½, and if the remainder are not fed up early, fully a third more will perish for want of supplies.

Lexington, Ky.

For the American Bee Journal.

What Is Royal Jelly?

W. C. PELHAM.

In the article under the above caption, published in the BEE JOURNAL of March 23, your correspondent makes some very broad assertions to support his theory of the development of queens. For instance he says: "The fertile workers are produced by the workers taking the drone's semen into their stomachs," etc. If your correspondent would state just how he discovered that fact it would be of interest to your readers.

Just what constitutes the royal jelly may be hard to determine, but we might settle whether or no it differs materially from the food given workers and drones by collecting enough of the latter to supply a queen cell, and hatching it, if necessary, in a lamp nursery. That the eggs do not differ in character from which workers and queens are produced is well established. If the eggs are the same up to the time of their hatching, there can be no way to produce queens except by nutrition, growth, development. The idea that the ovary of the bee can be fecundated while in an undevoloped state is not in accordance with physiological laws as now known. I will venture to assert that no instance can be named in the whole animal creation where the female is impregnated by means of the digestive organs. To each set of organs in the animal economy is assigned their functions and the functions of one set cannot be assumed by another set in the manner that Mr. R. indicates.

While a knowledge of the composition of the royal jelly may not be of much practical importance, I will suggest how your readers may try some experiments, the results of which may be of interest to scientific bee-keepers and the world at large.

1st. Substitute a drone egg for a worker egg in a queen cell naturally built, and if necessary seal it artificially and hatch it in a lamp nursery. (See Langstroth on this experiment).

2d. Supply a worker egg with worker food collected from the cells so that it may be as abundant to the larva as royal jelly is.

3d. Supply a drone egg in like manner.

These last two may be varied by collecting the food from drone cells. I do not think it beyond the possible to hatch a bee egg and nurse the larva during growth in an artificial queen cell. It would probably require to be capped or sealed over at the proper age. I have noticed that the bee larvæ if unsealed and removed from the care of the bees work out of the cells and fall off the combs. The sealing may, therefore, be merely to confine them to the cells.

Mason Co., Ky.

For the American Bee Journal.

My Experience with Separators.

G. M. DOOLITTLE.

We read on page 33, AMERICAN BEE JOURNAL, 1881, these words from the pen of Mr. Heddon: "These separators cost me too great a portion of my surplus crop, to say nothing of their *first* cost and trouble of manipulating;" and again, "there is no need of those nuisances called separators." On page 75 of the BEE JOURNAL we read, also, "that all separators are a great drawback to the production of comb honey." Now, this all sounds good, and if there were no other bee-keepers in the United States except himself, no doubt all would be well. But it happens that myself and others keep bees; it also happens that all honey districts are not like his, and that different methods are used to secure certain results, by different parties; hence, the only true way to arrive at a right conclusion is to watch and see what methods the successful ones adopt.

I believe tin separators are right the opposite of a *nuisance;* that they do not cost us a pound of our surplus crop after they are bought, and that they are no drawback to the production of comb honey, but, on the contrary, a help. Now for my reasons for such a belief: We first used separators in 1872, on a small scale, to try the feasibility of them. These were cut so as to leave ½ an inch at the top and bottom of the sections, as we were sure they would retard the labor of the bees in the boxes, inasmuch as they divided the bees into small clusters apparently. To test the matter, we used some without separators, and went so far as to leave the bottoms pretty much entirely off some boxes, to see how much the gain would be; but at the end of the season each was about balanced as regards the surplus. We found we had made a blunder in cutting our tin too narrow. The next year the tin was cut wider, and also some were slotted so as to divide the bees as little as possible. Some were used with, and some without separators. No perceivable difference as to yield was the result, while many of those without separators could not be crated, to say nothing of glassing them. We finally adopted a separator as wide as the inside of the box within ¼ inch at the top and bottom, with no perforations of any kind, and to-day, although we have experimented many ways since then, we see no reason for abandoning them; but on the contrary, many reasons for still continuing their use, a few of which we will give you.

First, we wish to work our sections from the sides to top of the hive, as was described in last week's BEE JOURNAL, believing, as we do, that better results can be secured in that way. If we did this without separators we should get very uneven combs, as our experience has taught us.

Second, we wish to take off each section as soon as it is capped over, while it is snow-white, and not leave it on the hive till all are finished. Now, if we do this, taking out ⅓ or more, and place those partly filled, or empty except a starter, in their places, unless separators are used the bees will lengthen the cells of those farthest advanced, so as to crowd into the others, thus making irregular combs, as we have in putting an empty frame between two full ones in the brood chamber.

Third, by the use of cases with separators, we need take none of the precautions about "adjusting," which Mr. Heddon told Mr. Tuttle about, but simply slip our boxes into the cases, clamp them together, and no further trouble. We should want to use cases anyway, to keep the boxes clean and free from propolis, if nothing more, and should consider the plan of letting the bees go over the bottoms and tops of the boxes, as given on page 75 of the BEE JOURNAL, a bad one.

One other thing: I see, in order to get these straight combs, Mr. Heddon uses comb foundation, and as most of us must buy it, we have to take the pennies which we have hoarded up for the support of our families, and send them away to some supply dealer, to encourage him in getting a living in that way instead of producing honey for market. I am glad Mr. Heddon does not sell foundation, for if he did we might think he was throwing away tin separators for other supply dealers to "grind their axes on," while he ground his on the more profitable "comb foundation" (see BEE JOURNAL, page 66). Please excuse me for joking.

I embarked in the bee business with the understanding that I paid out no money for *extras* or *luxuries*, and from my experience with comb foundation I still consider it a luxury, believing that we can produce comb from the bees at a less expense than it costs us to buy foundation, and thus keep our pennies at home. Again, our honey comes with a rush, as a rule, and the bees seem to prefer to add their own wax on to the foundation, rather than to draw the foundation out, with the one exception of the thin Van Deusen. I have repeatedly scraped the cells and honey off of the lozenge-shaped foundation, washed the foundation, and presented such a piece, together with a piece of the same that had never been used, to parties to have them tell which the bees had used, and it was with difficulty that any difference could be found. With the Van Deusen the case is different, for in order to make the flat bottoms lozenge-shaped, the bees must manipulate it. But this manipulation costs the bees time, hence the flat-bottomed is not as readily accepted by the bees. Where not more than 2 or 3 lbs. of honey is stored in a day, the bees generally thin the foundation properly; but if a greater yield, the wax in the foundation is little used, the bees merely using their wax to lengthen the cells with. At least such is my experience with foundation of various shades for the past 5 years.

Once more: From experiments made each year for the last 5 years, I have been unable to see wherein any gain was made in our honey crop by the use of foundation. We have repeatedly placed boxes filled with foundation, and those having a starter of natural comb to the amount of not more than three square inches, side by side, and as a rule, the box with the starter of comb would be filled ready to be taken off first. We also have failed to notice any greatly increased yield by the use of foundation, reported by any one. To sum up, from experience and observation up to the present time, we believe comb foundation does not, all things considered, pay when used in section boxes; that section boxes cannot be used to the best advantage without tin separators; that the first cost of tin separators is no greater than filling the sections (which the separators will cover) once full of foundation, and that after the tin separators are once purchased they are good for life, while the foundation must be purchased each year. Therefore, we use separators in preference to foundation. Mr. Heddon will please excuse me if I once more quote his favorite sentence, by saying in regard to separators, "I am not prejudiced in their favor because I adopted them; I adopted them because I was prejudiced in their favor." I am well aware that many will say in regard to my statements about foundation, that "they are no credit to me," as they did in regard to a previous article from my pen on the subject of "comb foundation." Nevertheless, if I say anything about what we use, I must say what I believe to be the truth about it, whether it is, or is not, a credit to me.

Borodino, N. Y., April 5, 1881.

For the American Bee Journal.

How to Separate Swarms.

E.

Under the above caption Bray & Seacord attempt, in the issue of the BEE JOURNAL of April 6th, to tell how they perform the operation; but after reading, the "inquirer after truth" will not be much wiser than before.

They say: "Make a box 3 feet long (or any size that will fit the frames of your hive), make one entrance to the box for the bees to pass in and out; make a tight cover to fit the box, with cleats on 2 sides, no end cleats; make 3 or 4 division boards; then the box is ready for hiving the bees.

"Now take the box and hive the cluster of 2 or more swarms, and as soon as all the bees are in the box, put it in a shady place, and let it remain there until the next morning; then push the box cover lengthwise of the box and you will observe each queen with her colony clustered by themselves; now place the division board between each cluster, push the cover back again over the cluster and hive at pleasure."

Two of the most important points in the operation are left entirely in the dark. What use is made of the frames mentioned in the first paragraph, and how are 2 or 3 swarms in one box to be shaken in front of the hives they are designed to occupy without risking the original confusion? When a correspondent attempts to teach others how to perform some original operation, he should be particular to mention every minutia. One omission in this respect will frequently befog the whole business.

Kansas, April 17, 1881.

[We observed the omission on the part of the author at the time of its publication, but refrained from calling attention to it for the reason that writers usually prefer explaining their methods in their own way. We are glad, however, that it has awakened criticism, as it forcibly illustrates to contributors the necessity for precision in describing new discoveries. Accuracy should be observed in every detail, and brevity in style of composition.—ED.]

For the American Bee Journal.

Ventilation for Winter.

S. GOODRICH.

All bee men talk about ventilation; the question is, how much is wanted? The novice is inclined to think, after reading about chaff hives and cellar wintering, that his bees must be kept warm, at least they must not be exposed to the winter blasts, consequently he bundles up his bees in a tight-fitting hive, covers them with chaff, straw and blankets, stops up the entrance so that not more than two bees can pass. "Now," he says to himself, "my bees are in good shape for any weather." I think blankets, chaff and straw, or any other absorbent, is all right as far as it goes; but bees, like all living animals or beings, require a constant supply of fresh air and a chance for the foul air to escape. Now, I would like to know how this is to be accomplished with a tight-fitting hive and only a small opening at the entrance?

I am satisfied, from experience and observation, that after packing the bees in straw or chaff, if an opening be left at the top over and above the packing, so that the air can pass freely, the bees will, 99 times out of 100, come out as well in the spring as in any other way, provided you let them alone, do not disturb or rap them up under any circumstances when it is too cold for them to fly. Put your bees in winter quarters before cold weather—before they are done flying—and when cold weather comes on they will go quietly to their cluster, and instinct teaches them the balance; but if you shut them up in an air-tight hive, with no other ventilation than a "key-hole" at the bottom, and stir them up every few days to "roll call" or to hear them buzz, you may expect disease, dysentery and death.

Urbana, Ill., April 8, 1881.

For the American Bee Journal.

Candying of Honey a Test of Purity.

W. J. WILLARD.

The candying of extracted honey is a subject of vital importance to all bee-keepers in this vicinity and southward.

My attention has been called to this many times by assertions that nothing but pure honey will candy, and the more so by the resolutions of the North-eastern Bee-Keepers' Association making candying the test of purity. This is a wrong to all of us (I am no shipper of honey but there are many south of here who are), our honey will not candy solid, only a little in the bottom when it is taken from certain flowers (and they are the red clover and some of the asters).

For nearly 14 years I have tried to get my honey to candy as I have seen it in the North, but without success. I have exposed it to 16° below zero in the light and in the dark, I have exposed it to 100° above in the shade, at the same time had a jar standing in the sunshine where the mercury stood at 128°; none of it candied. This is not the result of one, but of many experiments, therefore I say that the assertion that nothing but pure honey will candy is injurious to many bee-keepers of this county. Nevertheless, I will go heart and soul against the adulteration, not only of honey but of every other article of food produced in the world.

Last July (about the middle) when our second crop of white and red clover was just in its prime, I extracted about 12 lbs. of a nearly white honey, put it in quart jars, exposed it to the cold, part in the light, part in the dark, mercury went as low as 16°; up to date there is but about 2 inches of candy in the jars, and that is the nearest I ever knew the honey in this climate to come to candying, and I have some now which I have had for 3 years; kept it for experiment.

Let our motto be, "Down with Adulteration of every kind," but do not fix a standard of purity for honey outside of a chemical test, or you will wrong many bee-keepers who cannot afford the loss which would accrue from the "candy standard."

Jonesboro, Ill., March 17, 1881.

For the American Bee Journal.

Some Incorrect Statements Criticized.

C. A. HATCH.

Several articles from E. A. Morgan, of this State, have appeared in the BEE JOURNAL and should not go unnoticed for fear that some novice might think his remarkable results are easy to obtain. He asserts that "basswood buds are all right," etc. We would be only too glad to know that all of this is true, but we have had 4 years' experience with bees and basswood trees and we cannot tell by what means he can know thus early. Does he forget that even the twig which is to support the flower stalks yet has to grow from the bud? Or, are his eyes so much sharper that he can look down into the bud and see the embryo twig, and even discover the sap which is to develop into the future bloom? Might he not as well look into a kernel of corn to determine how many ears the stalk to grow from it will have on it? Is it not a little absurd to talk of the buds swelling when in the same chapter he tells us that the mercury has not been above 30° above zero, and down to 40° below?

Again, those 3 peck swarms, and over—we should call one peck a good swarm, and any over that extraordinary. He says: "I have kept such in 2-story Langstroth hives and they filled them with bees from June until frost." A standard Langstroth hive of 10 frames will hold 2,755 cubic inches, and taking out 10 frames 1 inch thick leaves 1,112 cubic inches for bee space. One peck contains 532½ cubic inches, and 3 pecks 1,597½ cubic inches. Now when frost comes and he takes off the top story to fit up for winter how could he get 1,597½ cubic inches of bees into 1,112 cubic inches of space?

Let us look at that enormous yield of comb honey. My apiary of 54 colonies has an average of 154 lbs. of extracted honey and but 12 increase. He is not 100 miles away and yet he reports such unheard of yields of honey. Hear him, "my best colony gave me 245 lbs. comb honey, while the parent hive gave 185 lbs." This, according to the custom of counting it all as the product of the original hive, would give 438 lbs. from one colony, and a poor clover yield at that! Did he not measure his honey in the same peck that measured the bees?

Our bees have not been out of the cellar since early in November, hence are getting quite uneasy. It is hard as yet telling what the losses will be; some have lost all, others ½. I have lost 3 out of 4 packed in straw out-of-doors, and only 3 out of 54 in the cellar. I have 8 buried in a pit, and do not, of course, know how they are. I have always had best success in the cellar.

Ithaca, Wis., March 12, 1881.

For the American Bee Journal.

To the Bee-Keepers of Indiana.

L. R. JACKSON.

It would seem from the reports through the BEE JOURNAL that we have lost more bees during the past winter than any other section of the country. This is an evidence that we are behind other States in scientific bee-keeping. We should not allow this to be so. Our State is as good a field for bee-keeping as the adjoining States, and, in some respects, far better. It has not been as well worked up and the apiarist has a better chance to make a selection of a location. Bee-keeping is no longer a business of doubt. We have many bee-keepers all over this country who are making bee-keeping pay as well as any other industry, according to the labor and capital invested, and far better than many trades or occupations where far more capital is required.

Whatever business we follow we must learn it if we wish to be successful. We should learn from every available source. I know of no business that we have as good opportunities to learn from the experience of others as bee-keeping. A scientific bee-keeper is ever ready and willing to assist you; he will give any information that will make you more successful in your business, and will not ask that you pay him a large sum of money for some receipt for taming or handling bees. There is a fascination about bee-keeping that would seem to bind us closely together as members of one family or fraternity.

We should take and study the bee periodicals and at least one good book on apiculture. I would recommend Prof. Cook's "Manual;" it is a very scientific work and has done more to aid me in my work with the bees than any work I have read. Such study will improve the mind and make us more useful to ourselves and others. If we take the JOURNAL we get the advice of the very best bee-keepers in the country and have the help of hundreds of intelligent apiarists; each week we receive something new to aid us.

Bee-keeping is yet in its infancy. It has been but a few years since we used the old box hive and knew but little of the interior workings of the hive. Within a quarter of a century there has been more learned about the honey bee than there has in a thousand years before. While many sections of the country are availing themselves of the benefit of this knowledge and reaping large rewards for their labor, we are quiet and indifferent. Let us make an effort this year to do better work than we have ever done. We have every indication of a good honey year. Prepare for it now and have your hives and everything ready in time.

I have no doubt that the past winter has discouraged many who should rather have learned a lesson by it. This has not been a hard winter on bees in this section of the country, where they were properly protected. I have not had bees winter as well in 5 years as they have this winter, and never have had bees in as good condition the 1st of April as they are now. Bees should be prepared for winter before cold weather sets in. I never allow Oct. 25 to pass without having my bees packed in chaff and all preparations made for winter. I winter on the summer stands, and would winter no other way. I have never lost a colony of bees in wintering, and will give my plan for packing. I use the Gallup frame, 12 to the hive. In October I remove 4 frames and put a chaff cushion on each side, then spread a quilt over the tops of the frames and fill the top story 6 inches deep with loose chaff. If this chaff becomes wet at any time raise the top of the hive and stir the chaff up, leaving the top off for half an hour and the chaff will soon dry out. If I have any colonies that will not cover 8 frames I double them up with some other weak colony. I use a loose bottom board, and every 3 or 4 weeks I raise the front of the hive gently and brush out all the dead bees. I cut a hole through the centre of each comb so that the bees can move from one part of the hive to another without having to go around the frame; then they will never starve with plenty of honey in the hive.

Do not put off packing the bees till cold weather or they will be almost sure to have the dysentery early in the winter, unless they take a good flight a short time after they are packed. Packing on the outside of the hive will do but little if any good; the bees will not freeze as long as the inside of the hive is kept dry. If they are strong, as they should be, the chaff will generally take up all the moisture. If this moisture is allowed to freeze on the hive it is very apt to chill the bees to death when it begins to thaw. The hive then becomes filled with a cold damp atmosphere, and you know how quick you chill one of these cold damp days.

In conclusion let me urge all to make an extra effort this year. If your neighbor bee-keepers do not take a bee-paper show them a copy of the JOURNAL and ask them to subscribe for one; and if you have not read a good work on apiculture, do so at once. One colony of bees intelligently managed will make you more clear money than 5 poorly managed.

Allow me to congratulate the editor on the success of the Weekly BEE JOURNAL. I have often wished for a Weekly, but did not think anyone could make a success of it. I no longer have any doubt of its success after reading the many excellent articles in the first 3 months of its publication. I do not think it can be beat as a scientific journal. The editorials alone have been worth more to me than the price of the JOURNAL.

Fairland, Ind., April 4, 1881.

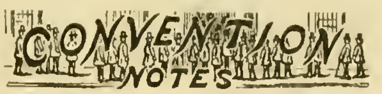
For the American Bee Journal.

The Bee Moth.

W.

I believe many readers of your valuable JOURNAL will read with pleasure a simple method for destroying that pest, the bee moth. The following is one which I have used for the past 3 years:

I placed a gallon mustard jar in my apiary in which I put about 4 inches of water sweetened with refuse honey. The first year I caught hundreds, as well as codling or apple moths; the 2d year I did not get so many, and the last year I caught but few. I think I will soon destroy them all. The vessel must not be too narrow at the neck. The moths only fly at night; the vessel must be taken in in the day or many bees will be lost in it. The moths must be removed every 2 or 3 days, otherwise those which come into it will light on them and be able to escape.



Southwestern Iowa.

The Southwestern Iowa Bee Association met at the Court House in Corning, April 2, 1881.

The President delivered a short but interesting lecture.

Seven new names were enrolled, making 65 members.

The Secretary read a paper from J. T. Fife on the management of bees.

L. E. Mercer, Vice President for Taylor county, had the hive formerly adopted by the Association on exhibition, and gave a very interesting description of it; also samples of comb foundation, queen cages, prize boxes, smokers, etc.

Deferred subjects for discussion were called up. The purity of drones from hybrid queens was discussed. It was maintained that the drone inherited the purity of the mother, and was not affected by her mating.

G. W. Churchill claimed that by the improved methods of dividing, 2 swarms could be saved in the time lost by the natural or old system.

The following questions were submitted for discussion at the next meeting:

What is the best method of controlling the swarming fever?

Which are preferable, top or side boxes?

Which is most profitable (the market price being proportionate), comb or extracted honey?

The President named G. W. Churchill, of Essex, Vice President for Page county.

The Association adjourned to meet at the Court House in Corning, April 30, at 9 a. m.
J. T. FIFE, *Pres.*
G. W. CHURCHILL, *Sec. pro tem.*

Central Kentucky.

The Central Kentucky Bee-Keepers' Annual Convention met at Winchester, Ky., April 5, 1881, Vice President John W. Bean in the chair.

After some preliminary business, and owing to the small attendance (probably on account of the severe weather), the Convention adjourned to meet in Lonisville, Ky., in conjunction with the State Convention, which meets in the Exposition Building, Oct. 12, 1881.
JOHN W. BEAN, *Vice Pres.*
W. WILLIAMSON, *Sec.*

☞ The Southwestern Wisconsin Bee-Keepers' Association will meet at the residence of W. B. Wallis, at Darlington, Wednesday, May 11, 1881, at 10 a.m.

There will be an opportunity given for questions and answers. Interesting papers will be read, among which may be mentioned:

Location of Apiary, by E. France.
Implements of the Apiary, by R. D. Wilson.
Feeding Extracted Honey to Produce Comb Honey, by Dr. C. Abraham.
Foundation, and its Advantages, by D. R. Sylvester.
Bee Forage, by H. Gilmore.
Preparation for Winter, by George Fox.
Wintering Bees, by Reese Powell.
Advantage in Preparing Papers, by E. France.
Profitable Bee-Keeping, by E. Pike.
Bee-Keeping, will it Pay? by N. E. France.
The Prize Essay of the N. E. Convention, on How to make the Apiary the most Profitable, by George W. House, of Fayetteville, N. Y.

A cordial invitation is given to all.
N. E. FRANCE, Sec., Platteville, Wis.

☞ Programme of the Northwestern Bee-Keepers' Union, to be held at Hastings, Minn., May 17, 1881:

1.—Address of Welcome, by J. N. Searls.
2.—Reports of committees.
3.—Reports from all—number, kind and condition of bees.
4.—A paper by Pres. A. Tidball, on honey-producing plants and flowers.
5.—A paper by Dr. P. Barton, of St. Paul, on honey as food and medicine.
6.—Apiary culture and our fairs, by Hon. William Avery, of St. Croix Falls, Wis.
7.—A paper on sales of honey, by F. B. Dorothy, of Taylor's Falls, Minn.
8.—A paper on wintering bees, by L. Day, of Farmington.
9.—Progressive bee-culture, by J. G. Teter.

The above subjects will be open for discussion. In addition to the above, the following subjects are suggested:

1.—Essential properties of a good bee hive.
2.—How to prevent and cure foul brood.
3.—How to prevent spring dwindling.
4.—Comb Foundation, with dividing and natural swarming.

Appointment of committees.
Election of officers. Adjournment.

☞ All bee-keepers are cordially invited. Entertainment free.
F. B. DOROTHY, *Sec.*

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR.

CHICAGO, ILL., APRIL 20, 1881.

Mr. Frank Benton's Javan Mission.

The following letters from Mr. Frank Benton to Mr. Jones, will be read with interest:

Batavia, Java, Feb, 14, 1881.

DEAR MR. JONES:—I arrived here with the bees all right, though some colonies are weak. I will try to save them all. I have, after much work, finally got on the right track and on the right side of some of these Dutch officials, and fully expect to sell the lot of hives—as many as I can put in order —at £5 each. I thought Ceylon a pretty hard place to accomplish anything in—much harder than Cyprus or Palestine; but it is "not a circumstance" to this. There are no interpreters here; no natives can speak English, German or French, and only those who have fine government positions can speak Dutch. Having gotten hold of some good men now, I think I will obtain help to secure wild bees, but since they have, every one of them, to be gotten from the forests—to be hunted up yet, and then secured, I do not believe I can get a large number; but I think I shall not meet with losses on the return. BENTON.

Beutenyorg, Java, Feb. 15, 1881.

FRIEND JONES:—I scribbled this note yesterday with a pencil, but came away without mailing it in Batavia. The matter of selling the bees is more certain now. I brought them a day or two ago to this place by rail, and am fixing them up as best I can, and as soon as the sale is completed will remove them to the Government Agricultural School, which is near the hotel where I am stopping. The queens are all right, but in some hives there are but a handful of bees, and in the strongest only 3 combs. They are brood rearing and I shall keep it up by feeding all they will take, and equalizing brood; then I will leave instructions about continued feeding. The government wants to make a thorough test of the matter of introducing Europern bees here. The bees Mr. Rykens took from Europe, 24 colonies, nearly all died before he reached Port Said. Five colonies in very weak condition arrived here and have since died. Mr. Rykens is now in Europe sick, but they expect him to return sometime.

The head of the Government Department of Agriculture has instructed one of the officers of the Government Agricultural School to furnish me aid in securing some of the wild bees—*Apis dorsata*. So as soon as I have gotten the colonies I brought, in fair condition, I will start out after them. I have not yet seen a bee of this race, but have seen two combs of these bees, which are 3 feet by 3½ feet, and are 1½ inch thick where brood was reared, about 20 cells to the square inch; the bees must be ⅞ of an inch long. The combs are never built horizontally—could not be, but are perpendicularly placed on the branches of the trees. The natives get the honey and wax from them, although I was told this morning, by a gentleman who has lived here for 50 years, that they "sting fearfully;" of course too much dependence must not be placed upon such a statement. Many who are not bee-keepers would say the same of our honey bees.

I cannot now tell how much money I will have when I get back to Cyprus, for I do not know what I must pay out yet; the very cheapest management I can adopt is still costly. Every move made by an American or European costs "like sixty" here. There is no choice, the money must be "forked over" or nothing can be done; they bleed everybody who comes, else he goes away without having accomplished anything. I hope to leave here March 4, for Singapore, and take the steamer which should meet me there for Ceylon. I have promised to arrange the bees I have left there, some colonies of which are now in Point de Galle, and for which I was to be paid upon their delivery in Colombo. I expect to get colonies of *Apis dorsata* there, now that I have learned more of the matter and know where they are actually plentiful. From Ceylon I will sail about March 27, arriving in Port Said about April 13; then to Cyprus as soon as possible thereafter, where I expect to receive further instructions as to future operations.

FRANK BENTON.

What Causes Dysentery?

In cleaning out some hives where the bees have died, my observations have confirmed me in the opinion I formed last summer. which is that dysentery is caused by starvation. I suppose that many will laugh. but that makes no difference; I look at the reasons they give for their opinions and not their opinions, and hope others will do the same by me. Last summer I divided my bees as usual, when there came on a rain that lasted some time; there was no getting honey outside of the hive, yet it was not cold enough to prevent their coming out. I noticed that the hives in which I had placed my new swarms were several of them being spotted up the same as they are sometimes when bees come out in winter. I knew something was wrong. I examined, and found every one that showed signs of dysentery were entirely destitute of honey, and one was much reduced in numbers by starvation. I put in frames of honey, and all recovered and became good colonies. Now. what but starvation could have produced dysentery in these hives? They had no long confinement, no little poison particles in the honey, for they had no honey; had not been eating an excess of old pollen, for the combs were full of brood except the upper corners, where bees seldom deposit pollen. From this observation I conclude that starvation will produce dysentery.

Is that all the cause? Perhaps not. But I must say that I never saw or heard of a case that I could not account for in that way. But, some will say, my bees have the dysentery with plenty of honey in the hive. It is well known that in cold weather bees are very stupid, and those on the outside of the bunch nearly lifeless. Open the hive in cold weather and those on the outer edge of the cluster will only stick up their hind end at you, while those inside come out lively to defend their home. It is my opinion that these stupid bees in long confinement starve, and before they die crawl over the frames and discharge their feces. It will be noticed that bees that starve have the abdomen always full of dysentery feces.

I have lost 53 colonies out of 113 that I packed up last fall. All died of hunger. When I pack my bees in the fall I intend to put in honey enough to last them until the warm days in March, and no more. I do this because they have less room to keep warm, and I think they are less apt to breed when they have a small amount of honey. I expect to look over my bees in January or February and give them more honey if they need it, and for that purpose I laid away nearly 300 frames of honey; but I had no chance to examine till in March when they were dead. The live ones I gave more honey, and I think they are all right now.

I might say something complimentary to the Weekly BEE JOURNAL, but "the rose that all are praising" needs no praise from me.

E. B. SOUTHWICK.

Mendon, Mich., April 7, 1881.

We have published scores of letters stating bees had died with dysentery when there was plenty of honey in the hive; other letters state the bees had dysentery badly, but they enjoyed a purifying flight, and are now quiet and contented, while two letters speak of improvising house-flights, and thereby checking the malady. If the trouble arise from starvation, why not starve as well 3 or 4 weeks after a flight, provided the weather be extremely cold or changeable, as 4 or 5 months after a flight? During ordinary winters, when flights are more frequent, although stores are proportionately no larger, dysentery is not of such frequent occurrence as during protracted cold weather, when frost is more accessible to the bees. Again, we have known bees to become bloated with their feces in summer, after several days' confinement, when in transit over rough roads, then standing 2 or 3 days in the shade before being released for a flight; and this with plenty of honey in the hive. We have opened many cages in which queens and bees had been imported from Italy, to find them all dead, not one-fourth of the honey consumed. but all covered with stinking excrement. They may have starved, but only after having rendered their food unfit to be consumed.

The case cited in the first paragraph of the above communication, is rather a disproof of the Doctor's argument: He divided his bees as usual, the excitement incident to division caused them to consume their stores and become gorged, raining weather set in to prevent timely and necessary flight, and a first-class case of dysentery was rapidly developed as a result. We are sorry to disagree with Dr. Southwick in his conclusions, but cannot indorse his belief.

Foul Brood.

In the JOURNAL for March 30, page 102, Dr. Wilson calls attention to Mr. Jeffrey's article on "Foul Brood," because it so fully expresses his views on the subject. I know the Dr. is fully competent to express his views, and I wish he would do so and tell us what he knows on the subject and say whether he considers the disease contagious or not.

On page 68 of the AMERICAN BEE JOURNAL, same date as above, Dr. W. says on the same subject: "but for 10 years this (Mr. Jeffrey's belief) has been my opinion,"...."but I refrained from writing my sentiments because all who wrote about it seemed to think that foul brood was a disease to which bees were subject," etc. I am sorry that Dr. W. has not accepted his own advice as given in the last words of his article and given his sentiments in regard to foul brood years ago, and I earnestly hope that he will respond to the editor's request to "let us have the facts and experiences." I have no foul brood among my own bees, but have the care of some colonies that have it, and every apiary in this region that I have examined has what, according to the descriptions given by our best authorities, is called foul brood, but if Dr. W's. belief "that it is not contagious" is correct, then what we have here is not foul brood, and if they (Mr. Jeffrey and Dr. Wilson) are right as to its cause, I believe he is right in saying that it is not contagious. I have been keeping some bees in my cellar the past winter for other parties, and some of them have this same disease, and it has not come from chilled brood either, for the disease is in the centre of the brood nest, and the colonies have been in a temperature of about 45° all winter.

I gave a brief description of the disease we have here, in the AMERICAN BEE JOURNAL last July, and before I received the JOURNAL that had my article in I received a letter from Col. Whiting, of East Saginaw, Mich., who had seen my description, stating that what I had described was foul brood, and he enclosed a postal card that he had received from a Mr. Walker, giving his method of cure. I have mislaid the Col's. letter, but think that he suggested to Mr. Walker the course to pursue to cure his colonies, and he writes Col. W., "I am happy to say that it has proved a complete success."

I am glad that this disease is attracting so much attention for it is certainly a terrible thing in the apiary. A neighbor who had expected great things from a good sized apiary last season, found the disease so bad in his colonies that he has given up all hopes of doing anything with them, and did not prepare them for winter as he had been accustomed to do.

I certainly hope that Mr. J. and those that think as he does in regard to the cause of the disease are right, and that it is not contagious, but I am very strongly of the opinion that they are mistaken. Certainly the disease we have here is not caused by the brood being chilled, and it is contagious.

Mr. Editor, I wrote you once that at first I did not like the change from the Monthly AMERICAN BEE JOURNAL to a Weekly, but I like it better and better, and look for its weekly visits as anxiously as I do for my daily paper, and would as willingly do without the latter as I would without the Weekly AMERICAN BEE JOURNAL, especially if it keeps on improving as rapidly as it has since it changed to a Weekly.

BEE.

It is certainly gratifying to observe the interest being awakened on the subject of foul brood, among those who are perhaps as well qualified to solve the difficult problem as any. That there are conflicting opinions regarding it is not a matter of surprise, when we take into consideration that locality and circumstances may develop contagions and epidemics differently, and frequently confuse scientists into the belief that different disorders are identical; perhaps initial symptoms which at times would result only in epidemics, might under other influences develop calamitous contagions. Hence Mr. Betsinger, when he says "Plenty of honey, no foul brood—no honey, then foul brood," may be right, while Mr. Muth, after years of scientific investigation may also have correctly pronounced it contagious, and Mr. Jeffrey, through his interesting observations, may have arrived at no less correct conclusions in attributing its origin to chilled and putrefying brood. Paradoxical though it may appear, all may be partly right and all equally wrong. Many disorders in the human family have for centuries divided the opinions of medical experts quite as much as bee-keepers are divided upon foul brood. We hope scientific investigation will not cease till a complete knowledge of its cause, course and cure is obtained, and will second any efforts with this end in view.

☞ Mr. R. M. Argo, Lowell, Ky., writes as follows concerning his experience with the BEE JOURNAL as an advertising medium: "My small advertisement in the Weekly BEE JOURNAL has done me more good than any advertisement I ever put in any paper. I have already sold all the bees I have to spare." Those who have anything to sell should use the BEE JOURNAL for advertising, if they wish to do much business. The large circulation of the Weekly gives advertisers an advantage they can get nowhere else.

☞ Our attention has been called to the fact that we failed to state in the BEE JOURNAL that the Van Deusen flat-bottomed and wired comb foundation received the 1st and 2d prizes in class 25 at the Royal Agricultural Society's Show in London, last July.

☞ It is no doubt a great advantage in Germany that practically one size of frame is adopted by all bee-keepers in all parts of that country.

AMONG OUR EXCHANGES.

GLEANINGS.

Peet Queen Cage.—Novice gives the following description of this cage, which is illustrated on the first page of this Bee Journal:

The cage is about 2½x4½ inches. The side pieces are made of strips 7-32x9-16. The side pieces are each 4½ inches long. The end pieces are each 2⅛ long by ½ inch thick; this brings the thickness of the ends 1-16 less than the sides, to let the tin slide run over the ends. The end piece that holds the candy is made from a piece ½x1½; but before nailing the box together a place is sawed out to receive the candy, so only about ⅛ of an inch of wood is left on the bottom and end. With a very fine saw grooves are made for the tin slide to run in; this slide is bent as shown, for convenience in withdrawing. A corner is clipped from the other end, that the cage may be opened so that one bee can be put in at a time, when caging the bees and queen.

The tin points are for fastening the cage securely into the comb. Directions for doing this are pasted on the cover of the cage, seen in the foreground. These are simply pieces of basswood, of the cage, one of which has the grain of the wood running crosswise, to prevent the liability of damage in the mails. The other little board we drop on our grooving saws, to cut the ventilating holes shown in the picture. When ready to nail the tin points are turned down, the little boards placed on each side, and the whole wrapped in strong flour-sack paper, after which an opening is cut or torn right over the ventilating slots. It will be observed we have no bottle of water in this cage. The reason is, that friend Vialton's candy seems to hold moisture enough without it. We will give the recipe for this candy again, as it may not be familiar to some of our new readers.

Take 12 ounces of powdered white sugar, 4 ounces of Louisiana brown sugar, one table-spoonful of flour, and 2 table-spoonfuls of honey, stir well together and add just enough water to make it like thick mush; then bring it to a boiling point, or if too much is added boil it a minute or two; then stir it well until it begins to thicken, and pour quickly a table-spoonful into each cage.

The peculiarity of this candy is that it never dries but remains soft and pasty, but yet not enough so to daub the bee.

MISCELLANEOUS.

☞ The London *Journal of Horticulture* makes the following allusion to the Weekly Bee Journal:

The American Bee Journal after a well-deserved successful run of 20 years passes into its 17th volume as a Weekly, in which form several numbers have appeared. It occupies thus a unique position, which its acknowledged merit will, we hope and believe, enable it to sustain with increasing advantage to itself and the bee-keeping world generally. Several of its correspondents are men of marked ability, while its excellent editor, Mr. T. G. Newman, needs neither introduction nor commendation, since he was with us during a portion of last summer.

☞ Ammonia, saleratus water, and other alkaline washes are the usual remedies for bee stings. A fresh tomatto leaf crushed and rubbed on the puncture is recommended as an easy and sovereign cure.

☞ It is estimated by those best qualified to judge, that there are about 10,000 bee-keepers in Canada. Only a small proportion of these are abreast of the times.

SELECTIONS FROM OUR LETTER BOX

Glucosed to Death.—I like the Bee Journal very much, and would have been one colony of bees better off if I had taken it a few months sooner. I had a colony of bees which cast a swarm late in August, and not having much fall honey I fed them grape sugar, and the result was they died with dysentery; if I had been a subscriber to the Bee Journal I would have known better than to feed them that stuff. I took the other colony into the kitchen on Feb. 3d, and having warmed them, let them fly there. We had some dirt to clean up, but the bees had a good flight, then settled on the window and I put them back. They are in fine condition now, with sealed brood. Three-fourths of the bees in this part of the country are dead, from not being taken care of. I put my bees under a shed, and packed in chaff at the sides and top. Is maple syrup as good to feed in the spring as coffee A sugar to stimulate for early breeding, or do they need anything if they have plenty of honey? My bees are Italians, of which there are but few in this part of the country, and they stood the winter better than the blacks.

R. P. Williams.

Goldsmith, Ind., April 1, 1881.

[If your bees come out in good condition, now have sealed brood, and have plenty of honey, why do you propose to feed at all? We doubt the propriety of building up very strong colonies too early, unless you have plenty of time and are prepared to feed during the bad weather of this month and most of May. If you wish to breed up early to practice dividing before white clover blooms, then a good stimulant is coffee A sugar dissolved quite thin with hot water, and given about a pint a day. If the bees are flying freely, and you know the maple syrup is *pure*, it will do to give it; but if you value your bees, do not take any chances on a mixed article, for commercial glucose is not fit to feed anything at any time.—Ed.]

Bees All Right.—I have been very much interested in the reports of disaster among bees in all parts of the United States, and after many months of grave apprehension in regard to the condition of my bees I am now prepared to make my report. To-day I took my bees out of the cellar and put them on their summer stands, all in good condition except a few colonies that died of starvation. My bees have been in confinement for 160 days. I have 56 colonies with which to commence the season; most of the bee-keepers in this vicinity have only empty hives. Notwithstanding the many conflicting opinions in regard to wintering bees, I have, after careful observation and many years of experience, come to the conclusion that cellar wintering in this latitude is far ahead of any and all other methods, and, moreover, that success in cellar wintering consists in thorough upward ventilation.

C. H. Teetshorn.

Cresco, Iowa, April 8, 1881.

Loss 50 Per Cent.—Bees had their 1st flight Feb. 26, when 36 colonies out of 60 were alive, since which 6 more have died. They were on the summer stands in simplicity hives, packed at sides and on top with clover chaff. The hives were in rows, packed between and at the back, and covered with marsh hay, coming to the ground in front. A few had no honey, but most of them had honey left in the outside combs, which had holes cut through as passages for the bees, but they starved as they were unable to reach the stores from the excessive and continued cold. We have usually laid sticks across the combs under the quilts but neglected to do so last fall, and no doubt much of the loss may be attributed to that neglect. I also think some of the colonies that had not sufficient stores in the fall and were fed in October, bred too late, for when the cold weather commenced they had brood in all stages. On examination this spring some of the combs have small patches of dead sealed brood in them. Most of the bees in this part of the country are dead; they were generally kept in box hives and unprotected. Success to the Bee Journal.

A. J. Hatfield.

South Bend, Ind., April 2, 1881.

Only Empty Hives Left.—The bees in this locality are nearly all dead. Winter began in November and it is winter yet. I wintered my bees on the summer stands and I have only a pile of empty hives and dead bees left. Every one heard from yet has the same general complaint: I have lost all my bees. B. D. Scott.

Ovid Centre, N. Y., April 8, 1881.

Astringents.—A friend of mine had 30 colonies of bees last fall—15 had fall honey, and 15 were fed sugar syrup. Those fed on the syrup came through in fair condition, and the others died. He lays the trouble to late fall honey. Do you know of any one who has tried wintering bees by feeding them syrup or candy made by steeping raspberry leaves or blackberry roots and using the tea to melt the sugar for the syrup or to make the candy? Should think that something of the kind would be good to prevent the dysentery. I have 7 colonies in good condition, wintered without loss. W. C. Jennison.

Natick, Mass., April 8, 1881.

[We do not know that the experiment has ever been tried, and have a doubt about its feasibility. If it was found that these or any other astringents had a medicinal effect on the bees, the danger would arise of running to the other extreme in their use, and we much oftener would kill our bees in ordinary seasons than save them in extraordinary ones.—Ed.]

Winter Protection.—My bees had a flight on Feb. 10th, and they are apparently in good condition. The bees are in Langstroth hives on the summer stands, with thoroughly cured cornstalks set around each hive, except the front, and tied in the form of field shocks. I tie a cord around the base of the shock, 2 or 3 inches from the ground, and wind several times above the hive until I bring it to a point at the top; by doing this it effectually sheds off the water, which is conducted, by the series of leaves overlapping each other, to the ground. I have examined frequently during the wettest weather, and invariably found my hives dry and free from moisture. On top of the cap, in the opening made by tying the stalks above, I crowd in straight straw endwise, letting it project a few inches in front of the hive. This mode of protection gives ample opportunity, in case of snow, to bank up as high as I wish without getting the snow in contact with the hive, and the stalks reaching above the snow, insure ample ventilation. I make a practice of banking in this way whenever there is snow sufficient to do so. In case of a thaw, the snow in contact with the stalks melts first, leaving a space of a few inches between the snow banking and the stalks, which frequently become entirely dry and brittle before the banking is melted. All I have to do at any time to examine the interior of a hive is to remove the straw placed over the cap, draw the hive gently forward sufficient to remove the cap, examine the bees, return the cap, slide gently back to the former position, replace the straw, put up the board in front, and all is again snug and cosy.

Fredonia, N. Y. U. E. Dodge.

Will Try Again.—Almost all the bees in this vicinity are dead. Those that were packed with chaff did the best. Some left plenty of honey in their hives. We are not ready to give up yet; many will try again. I cannot do without the Weekly Bee Journal.

E. M. Pomeroy.

Granville, Mass., April 5, 1881.

Wintered on Summer Stands.—I had 22 colonies last fall, wintered on the summer stands, and now have 20. I have no complaints to make.

O. Southgate.

Smithville, N. J., April 8, 1881.

Changed His Mind.—At first I did not like the change from the Monthly to the Weekly, but now I would rather have the Weekly at $2 than the Monthly at 25 cents a year. Count on me for a life subscriber. Wm. Brimmer.

Tracy Creek, N. Y., April 6, 1881.

Losses In-Doors and Out.—I had 77 colonies last fall and lost none till the end of January. The first I lost was in chaff hives on the summer stands. Those in the cellar I found in worse condition. I had 36 in the cellar and 41 in chaff hives and in large boxes, their condition being just alike. I have tight bottoms to all my hives. Three in large boxes wintered well. I lost 17, and 10 were so weak that I united them with others, leaving just 50 colonies. One man here having 43 last fall, now has 2 very weak ones left. These were well packed in clover chaff. It is yet quite cold, but my 50 colonies are in good condition, about the same indoors and out. James Harper.

Mason, Mich., April 4, 1881.

Bee-Keeping in Southeast Missouri.—As the flowers failed to secrete honey last season bees in southeast Missouri gathered but little honey, and but few young bees were produced, consequently we had only old bees when they went into winter quarters; hence the losses are very heavy. Old settlers here say they never knew such a season of failure in honey production since this part of the country was settled. This is considered a good location for bees for we have a vast amount of bloom in the spring, and in the fall the whole country, and especially the woods, is covered with bloom of every hue, till it resembles a garden of flowers. I can sell all the honey I can produce here at 15 to 20 cts. per lb., but the heavy losses of bees is very discouraging. The last season was almost as great a failure in corn as in honey production. But such failures will not stop me from trying to raise corn nor honey—they only learn us a lesson in taking care of our bees at the proper time instead of letting them take care of themselves.

Poplar Bluff, Mo. W. N. Craven.

Honey Poison.—In youth I could not eat honey without its giving me colic, etc., and if a bee stung me the swelling and pain were very great. Since 1875 I have ate honey and am now a regular consumer of it, without any bad results. These remarks are called out by Prof. Cook's article in No. 3, Bee Journal, on poisonous honey. I do not think that the stingless bees would be worth the investment in this country—they would be continually robbed by the native and Italian bees and would be defenseless. The Weekly Bee Journal was a grand New Year's treat, and I am glad to welcome it to my library every week. Its contents are all noted with care and I wish it never-dying success. R. M. Osborn.

Kane, Ill., Feb. 15, 1881.

Foul Brood.—I have been working with bees since I was a little boy and am now 65 years old, and I think foul brood is only found among bees that are weak, and I do not believe it to be contagious. Late breeding is the cause; the bees cannot keep the brood warm, and foul brood is the result. There is no need of a law against foul brood, and an inspector to ascertain if it is in a hive; every bee-man should know it, and he can easily cut out the dead brood if he watches it closely, and thus save all trouble.

Samuel Noblet.

Halifax, Pa., March 2, 1881.

Italians Ahead.—I wintered 2 colonies of Italians and one of native bees on the summer stands, protected from the N. E. and N. W. winds by a house. The Italians wintered well but the black colony died. E. F. Hawk.

Skippack, Pa., April 11, 1881.

Straw and Chaff for Wintering.—My brothers and I had 35 colonies last fall in the "Champion" hive; wintered on the summer stands packed in chaff and straw, and lost 5. About ⅔ of the bees here about are dead. Mr. J. W. Connor who, like myself, reads the BEE JOURNAL, has lost but 2 colonies out of 12. The spring is very backward; there is an inch of ice on the trees and on the earth here to-day; still I think the prospect good for honey in southwest Iowa if there are bees enough left to gather it. I like the BEE JOURNAL and Cook's "Manual of the Apiary."

S. C. SMITH.

Wheeler's Grove, Iowa, April 8, 1881.

Wintering in Kentucky.—Many bees have perished in this locality. My loss is 10 out of 85; 5 were starved, 3 queenless, one partly frozen, and one baffles diagnosis.

WM. C. PELHAM.

Maysville, Ky., March 31, 1881.

Five Months' Confinement.—I have 25 colonies left out of 100 wintered on the summer stands without protection. I had no surplus during the past 2 years, though the 2 years preceding I had 75 lbs. each season per colony. The increase was moderate. All had the dysentery last winter. More than ½ of all the bees in this vicinity are dead. My bees had no flight for about 5 months, and have been able to fly only a few days this spring.

R. C. AIKIN.

Shambaugh, Iowa, April 5, 1881.

Weevils.—I send you several specimens of a bug (2 females and 1 male). I find them on my bee hives and also have found one of them inside on the frames. What are they? Do they harm anything? If they are an enemy of the bee, I am inclined to the opinion they are a formidable one on account of their natural advantages. Shaped and looking like an iron clad; their armor being corrugated I think the missile of the bee would be harmless, and their shape would prevent the bees from carrying them out of the hive.

A. B. MCLAVY.

Bastrop, Tex., March 28, 1881.

[The insects are snout-beetles or weevils, and hence belong to the great family Rhyncophoridæ. These are very beautiful, and as they are new to our collections, I am very thankful for them. Wrapped up in the cotton, they not only came without injury, but were actually alive upon arrival. All weevils, so far as I know, are vegetable-eaters, not only in the imago or mature state, but also as grubs, in which condition they have no legs, and so are often called maggots. This latter name is only proper when applied to the larvæ of two-winged flies. So the specimens sent are related to the plum curculio, the pernicious wheat weevil, and to several of our worst borers. They like warmth, and have probably learned that the bees furnish this desired caloric, and so are found about the hives.

I shall be very glad to receive such specimens, especially from the South and West, and will give information in regard to them. If put in cotton they come without injury.—A. J. COOK, Agricultural College, Lansing, Mich.]

Hold Your Tongue.—Without inquiry we learn but little. I have carefully perused Prof. Cook's "Manual," a clear and concise treatise it is, and Langstroth's great work—while both recognize the fact that the "business end" of a bee is the great drawback to beginners, and suggest a number of remedies for the alleviation of the stings, yet both equally ignore the fact that man has within himself a sure, absolute and never-failing prevention. Now what is it? It is simply to take the tongue between the front teeth and hold it firmly there, while you dissect a bee, wasp or hornet with perfect impunity. Just how much pressure is required I cannot say; being of a timid nature I generally screw 'em up rather tightly. You say "fudge, that's an old woman's story, I have heard that ever since I was a boy." So have I, and more, I believe it from actual experience to be true. As to the facts that they exist as stated I have no doubt, and entreat no one to believe or disbelieve them; but my question is: what is it a contraction of, the pores, will, psychology, or. or, or something else? If some kind reader of the Monthly JOURNAL will give the why and wherefore to the above question he will greatly oblige one, and I believe many, of its readers.

C. H. CLINE.

Weatherford, Tex.

Bees and Grapes.—I have kept bees 52 years, and have tried all the different theories of bee-keeping. I used frames in the upper story before the Langstroth frame was patented, only mine were heavy and clumsy and rested on what is called the honey board, and there nailed fast. Except in 1 or 2 winters I seldom lost more than 1 or 2; I pack in dry soft-wood sawdust. I have cultivated grapes just as long as I have kept bees, but never perceived any injury from the bees. A wasp, some like a yellow jacket, some years bites them. One year my neighbor having some sweet grapes complained of my bees; I told him to pick a few bunches that were not stung, put them near my hives, and I would pay him 2s. for every grape that the bees punctured. He did so, examined them every day, but not one was punctured and he gave it up.

C. L. YOUNG.

Brecksville, O., April 11, 1881.

Care for the Bees.—I kept bees in box hives in Cortland Co., N. Y., for years, and do not remember of losing any in winter. Since I came to Michigan I have kept bees and last winter one was queenles and died with about 30 lbs. of honey in the hive. This winter I have lost one colony. I use the cottage hive, and left my bees on the summer stands until Dec. 1, when I put them into the cellar; I took them out on March 1. One was weak; I took it into a warm room and gave them a flight, and then placed them in a sheltered place and they seemed happy. I have but few colonies and give them careful attention, such as I do other stock. I feed them warm syrup every day. Nearly ¾ of the bees in this locality are dead.

LINUS REED.

Howell, Mich., April 2, 1881.

Lost All.—I put into winter quarters 43 strong colonies, having young bees and plenty of honey; all in a prosperous condition. I was quite proud of them, and expected by this time to realize a fair income from them, but, alas for "blasted hopes," they are all dead but 4, which are in poor condition. They were packed in chaff on the summer stands, in the manner recommended by Stout Hill, of Mount Healthy. They died of dysentery, caused, I think, from a poor crop of honey gathered in the fall. The last honey season was poor in this vicinity. My bees worked on the yellow willow about 2½ months in the fall; the willow was literally covered with Aphides, and this I think the main cause of dysentery; the honey is very dark and of poor quality. I think the JOURNAL is just splendid since it became a Weekly. I prefer it to all others and will do what I can to increase its circulation.

SAMUEL COULTHARD.

Preston, O., March 31, 1881.

Chaff Hives.—Four out of 5 of those who had bees here last fall now have only empty hives. Mr. Amos and myself are more fortunate, ours being in chaff hives. I am trying to get the others to replenish in the spring, and I think they will. I hope we shall have a plentiful season. The BEE JOURNAL is to me invaluable, and I thought last year if it was only a Weekly it would be complete, for a month is too long to wait for the next number. With it and *Gleanings* I think I shall be well posted during the coming year.

GEO. E. HILTON.

Fremont Centre, Mich., March 28.

Losses.—I commenced last spring with 2 colonies in box hives; had them transferred into chaff hives; obtained no increase, and only about 30 lbs. of surplus; they are in good order now. I bought 9 colonies in box hives in December, 1880, and packed them in chaff, of which I lost one. I bought 3 more in March, which are all dead.

L. R. LAMB.

Penn, Mich., April 9, 1881.

Figwort.—I read the BEE JOURNAL, and am pleased with it. I send you a piece of the stalk, some of the seed bolls and a green leaf of what I suppose is figwort or Simpson honey plant (*Scrofularia nodosa*. Am I right? I find it on new upland, and it grows as tall as 10 or 12 feet. I would like very much for you to name two or three of what you consider the best plants to cultivate for honey; in other words, what is your idea on this subject?

V. C. STIERS.

Haydenville, O., April 5, 1881.

[You are right; it is figwort. We think the time is rapidly approaching when all thoughtful bee-keepers will acknowledge the wisdom of planting for bee-pasturage. Of course, opinion will be divided as to the most desirable kinds to plant, owing to adaptability to climate. For spontaneous growth, we prefer sweet clover, catnip, motherwort, figwort and giant mignonette. For a cultivated crop, buckwheat, alsike clover or mustard. Other plants will undoubtedly be found profitable and desirable for special localities, now that public attention is being directed to the importance of the subject.—ED.]

Winter Still Hangs On.—We have had a week of very severe weather, and if it does not warm up soon I shall lose 40 per cent. of my bees. This is the worst month of any on bees, and I have wondered if those who reported "bees came out good." the fore part of March, can say so the 1st of May? We are not through the woods till May 15th in this locality.

G. M. DOOLITTLE.

Borodino, N. Y., April 7, 1881.

Wintered Finely.—Our bees have wintered well. We have 150 colonies that have been out of the cellar a month, and 50 more that have not been out in five months—all doing finely.

T. S. BULL & SON.

Valparaiso, Ind., April 9, 1881.

A Beginner's Experience.—We have had a very severe winter and to-day the snow lies to the depth of 6 inches on the level. Bees in this section are nearly all dead. I started last spring with 2 colonies, increased to 8 by natural swarming, are all dead now but 3, and I do not think there are as many bees as in 2 colonies last spring. They left plenty of stores; some had several frames that were hardly touched. I use Langstroth 8 and 10 frame hives and the bees filled the lower story and I left it all in; some say they would have wintered better if I had taken out a couple of frames of comb and replaced them with empty frames, as they would have had more room to cluster. My bees were packed in straw, but they never had a flight from November until the last of March. There were a few days that a few would come out but only a few returned. I read all I can find about bee-culture and have taken the JOURNAL since it became a Weekly and like it very much.

C. W. FISHER.

Lewis, Iowa, April 8, 1881.

Chaff Triumphant.—Out of 109 colonies of bees owned by 14 persons (mostly farmers) last fall, 42 are now dead. My loss is 20 per cent.; occasioned by attempting to save some queens through the winter. Full colonies packed in chaff according to the best approved methods came through in perfect condition, without a purifying flight from Nov. 20 until late in March. I am so well pleased with the Weekly BEE JOURNAL that I think I cannot do without it.

S. A. SHUCK.

Bryant, Ill., April 4, 1881.

Bees Suffered Severely.—Bees in this part have suffered severely during the winter and a great many have died. Mine came out as strong as when I put them in, with brood in the hives. I winter my bees on D. A. Jones' system of wintering.

THOMAS SMITH.

Durham, Ontario, April 6, 1881.

Local Convention Directory.

1881. *Time and Place of Meeting.*

May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Beun, Sec., McGrawville, N. Y.
10—N. W. Wisconsin, at LaCrosse, Wis.
L. H. Pammel, Sec.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
12, 13—Texas Bee-Keepers' Association, at McKinney, Collin Co., Texas.
W. R. Howard, Sec., Kingston, Hunt Co., Tex.
17—N. W. Ill. and S. W. Wis., at H. W. Lee's, Pecatonica, Ill. J. Stewart, Sec.
17—N. W. Union, at Hastings, Minn.
F. B. Dorothy, Sec.
19—Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 12—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
Bee-Keepers' Magazine (A.J.King)	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T.G.Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 18@20c. for strictly choice white comb in 1 and 2 lb. boxes; at 14@16c. for fair to good in large packages, and at 10@12c. for common dark-colored and broken lots. Extracted, 8@10c.

BEESWAX.—Choice yellow, 20@23c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 14@16c.; fair do., 14@16c.; dark do., 11@12; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 80@85c.

BEESWAX.—Prime quality, 20@23c.

CINCINNATI.

HONEY.—The market for extracted clover honey is good, at 8@10c. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY.—Since our last there have been some 1,000 cases more of extracted honey cleared for Liverpool, and at our last the outlook for the coming crop was very poor. Since, there have been copious showers, and reports are generally more favorable. We quote white comb, 12@13c.; dark to good, 9@11c. Extracted, choice to extra white, 5½@6½c.; dark and candied, 5@5½c.

BEESWAX—22@22½c., as to color.

STEARNS & SMITH, 423 Front Street.

San Francisco, Cal., March 31, 1881.

☞ The Michigan Bee-Keepers' Association will convene in Pioneer Rooms of the State Capitol at Lansing, May 5. The following is the programme:

Regular order of business.

Annual address by Pres. W. J. Ashworth.

Address by T. G. Newman, editor of American Bee Journal; subject, Rise, Progress, Present Condition and Future Prospects of American Apiculture.

Essay—Profitable extent of bee-keeping, by James Heddon, Dowagiac.

Essay—Requisites of an Apiary, by H. A. Burch, South Haven.

Essay—Some important facts in bee-keeping, by Prof. A. J. Cook, Michigan Agricultural College.

Discussions and remarks.

Examination of exhibits.

All exhibitors of supplies are requested to send samples to the Secretary, with prices and descriptions attached, and all transportation charges must be prepaid by the exhibitors. GEO. L. PERRY, *Sec.*

☞ The North Western Wisconsin Bee-keepers Association will meet at Germania Hall, LaCrosse, Wis., on Tuesday, May 10, at 10 a. m. All interested in bee-keeping are requested to be present. L. H. PAMMEL, JR., *Sec.*

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., October 11 and 12, 1881. DAVID EISHELMAN, *Pres.*

O. R. GOODNO, *Sec.*, Carson City, Mich.

SPECIAL NOTICES.

☞Single copies of the JOURNAL are sent postage paid for 5 cents each.

◆

☞Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

☞We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

◆

☞Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

◆

☞Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

◆

Gray Hairs Are Honorable but their premature appearance is annoying. Parker's Hair Balsam is popular for cleanliness and promptly restoring the youthful color.

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☞The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

◆

PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

◆

☞At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

◆

☞Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

☞It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Postoffice, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

☞We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

◆

☞Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

☞The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

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☞When changing a postoffice address, mention the *old* address as well as the new one.

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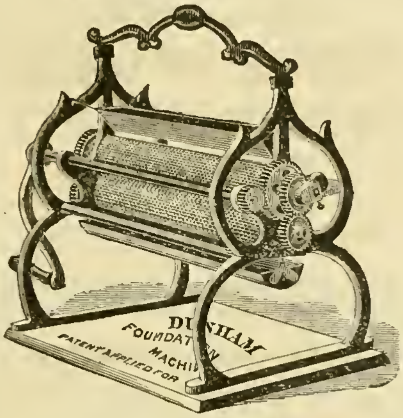

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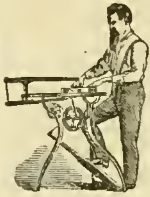

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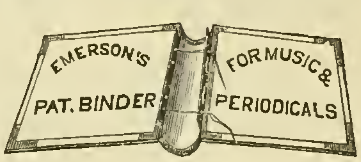

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☞ We were in error in attributing Mr. Stanley's sample of comb foundation to the Root mill. We are informed by Mr. Stanley that it was made on the Vandervoort machine, which he claims to be an improvement. It was very fine.

* * *

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☞ The next meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held at H. W. Lee's, 2 miles n.w. of Pecatonica, Winnebago county. Ills., on the 17th of May, 1881. J. STEWART, *Sec.*

* * *

☞ The Texas Bee-Keepers' Association will hold their third annual Convention at Judge W. H. Andrews' apiary, in McKinney, Collin Co., Texas, on the 12th and 13th days of May, 1881.

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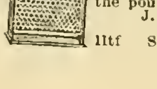

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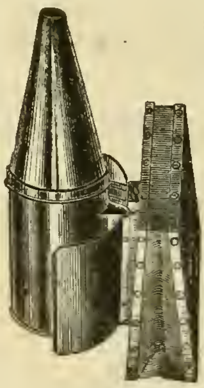

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ESTABLISHED IN 1861

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VOL. XVII. CHICAGO, ILL., APRIL 27, 1881. No. 17.

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CORRESPONDENCE.

For the American Bee Journal.

My Method of Wintering Bees.

S. VALENTINE.

The great and all-important question that comes to the bee-keepers of to-day is how to carry the bees successfully through the interval from the 1st of December until honey appears in the spring? With all our noted apiarists, Quinby, Langstroth, Wagner, and others, leaders in apiculture who have uncovered much of the desired gold and made apiculture a pleasant pursuit, there are still dark, shady spots that their wisdom has not brought to sun light, and doubtless to-day there is more gloom hanging over the subject of wintering bees than any other in apiculture. Since the subject of wintering stands first on the list of apiculture, and well deserves the earnest thought, careful study, and accurate experiments of the most practical apiarists, for if we fail to winter our bees and spring finds us without them, we need not bother about their management, forage, or any of the modern improvements, and we are almost certain to lose them sooner or later if they are not properly cared for. The honey bees are not like other insects, but are more or less active all through the winter and require more or less food according to the amount of heat they generate, and as they become numb at a temperature below 40°, therefore the temperature must be kept up by the bees at the expense of their stores, and if they are kept where they are exposed to extreme cold they will require the more food.

I have been experimenting for some years on wintering bees out and in-doors, and I am satisfied that bees will winter best at a temperature about 45°; but from experience we have learned that there are 4 things in the hive that are against successful wintering: 1st. A failure in late fall breeding; 2d. Unwholesome food; 3d. Lack of stores; 4th. Regular temperature. The first in importance is a good prolific queen, for if there is an old, worn-out queen, or a poor layer in the hive, the colony will be sure to come out weak in the spring, if not dead. In the early part of September it should be seen to that every hive is supplied with a good prolific queen, and if the hive is crowded with honey so that brood-rearing has been cut short, the lower half of the best comb for that purpose should be extracted, to give the queen room, or if breeding has ceased from a failure of honey in the field, they should be fed and brood-rearing kept up if possible until the last of October. But before feeding the apiarist should see that the combs are not partly filled with unwholesome honey, but here some one may ask, what is unwholesome honey, and how shall I know it? Apple cider, peach juice, grape juice and such like are not honey. When the bees have had ample time to seal up their stores, and it still remains scattered all through the hive unsealed, you can take it for granted it is not pure honey, and will bloat you bees. It will pay you well to extract it and feed A sugar.

If you have to feed for winter store it should be done in time that the bees can seal it over before cold weather sets in. A good, fair colony should have 25 or 30 lbs. of honey, on as few combs as possible, sealed over half way down and before putting up for winter quarters there should be a passage made through each comb, commencing about the centre and extending 3 inches upward, nearly an inch wide, that part of the bees are not cut off from the main cluster by a sudden fall in the temperature.

Now we come to the disputed ground: How and where can we keep the temperature most suitable for our bees? There has been a great deal said about both out and in-door wintering, with great diversity of opinion. I would like to favor out-door wintering, for it takes a great deal of labor to remove a large apiary to and from a cellar; but I cannot help but praise the bridge that carries me over.

From experience I am satisfied that in our latitude (39½°) we can winter our bees most successfully in a good cellar. All agree a uniform temperature is best and to have uniform temperature in the hive there must be quietness, and for quietness we need darkness and a pure atmosphere, and cannot these desired points be best secured in a good cellar?

It needs no argument to prove that darkness can be best attained in a cellar, and by proper ventilation a cellar can be kept with a healthy atmosphere. Poor results have been referred to in cellars standing at the freezing point; but I would consider a cellar that stands at the freezing point too cold and a very poor one. The temperature in my cellar stood all through this cold winter at 46° and 47°. It is 12½ feet wide by 26 feet long. It has no window, and is perfectly dark; it is right underneath our sitting-room and bed-room, and is ventilated through another large cellar, and has a flue connecting with the chimney; it has a cement floor, but not plastered overhead; the door opens into the other cellar.

There are always more or less bees dying which drop on the bottom board and often cause the hive to become foul. In the cellar, if properly arranged, they can be transferred to a clean, sweet hive, or the frames removed, and with a piece of tin 4x6 inches clean all dead bees and filth from the hive, and thus keep it clean and pure, which has a great deal to do with keeping them quiet; while on the summer stands, either from packing or a long spell of cold weather, you may not be able to open the hives for months, and a mass of dead, moldy bees, accumulates right beneath the cluster. I know it is claimed that handling bees in a cellar is also injurious, that they become excited and gorge themselves with honey. I claim gentle bees can be handled in a cellar without much excitement, and a colony in good wintering condition has very little unsealed honey and the bees cannot so easily gorge themselves. They seem to know all about it, or at least are very careless about looking for honey. They have to be forced before they will go for it.

My bees are princely Albinos, which are very gentle and easily handled. I have overhauled all of them twice, and some of them a third time, while in the cellar. I seldom used any smoke, and did not find any of them get excited and make a great ado about it. I open the hive without any jarring, and allow a moment's time for the advanced guard to retreat, and then handle carefully, and they were nearly as quiet when I closed the hive as when I opened it. About the middle of February, before I had overhauled them the last time, a few became restless, but after I had closed the hive they became quiet again. One might go into the cellar where there were nearly one hundred, and they would scarcely hear the buzz of a bee. I did not let a hive become foul in the cellar, and I am satisfied the bees are in much better condition than they would have been had I not kept the hives clean.

Six miles from home I had 15 very strong colonies with plenty of honey which I left on the summer stands. On the 10th of February I went to see them, and found one dead with from 30 to 40 lbs. of sealed honey in the hive, and they all had very many dead bees on the bottom-board, some of them smelt badly and had dwindled very much. I have lost one since, and several are in a critical condition.

Last year I bought and started a small apiary of 15 colonies in West Virginia, for experimenting. They did well through the summer. I think it a good locality for honey. Some of them made me from 25 to 40 lbs. of section honey after harvest, and in October, when I saw them last, they were all very strong with bees and had plenty of honey to carry them through, except two, which were badly managed in the early part of the season, and being crowded with work in the fall, I was unable to give them any attention. Now I am in receipt of a letter which states that there are over ½ of them dead.

My home apiary I have been using exclusively for queen-rearing and shipping purposes. Last year we had a very poor season, but 5 weeks of a honey harvest during the first crop of red clover, which ended about July 1st, after that there was very little honey gathered, and our bees quit brood-rearing 3 or 4 weeks earlier than usual. Now every queen-breeder will have an idea of the condition of my home apiary for wintering. However, about the 1st of November I doubled up and prepared 76 colonies and 24 nuclei for wintering. My nuclei were nearly all out of honey but I had some sections 6x6 and some 5½x6 filled and partly filled with red clover honey, I went to work and made nucleus boxes to suit them, some to hold 3 and some 4; I cut a rabbet 2½ inches deep to give ventilation and room to feed candy on top, transferred the bees into them, but the smell of honey excited some to robbing, and I was obliged to take them to the cellar. They seemed to do well for a few days, but in a week or 10 days became restless, and on examining found about ⅓ of the bees dead. I cleaned the boxes and bored 2 ⅝ holes in the rabbet, one in front and one in the rear, to give ventilation; but in a few days I found there was not enough ventilation. Oh! how I wished they could have a good flight; but the weather was too cold. I went to work again and made other lids, with an opening in the centre 2½x4 inches, and covered it with wire-cloth, cleaned the hives again, and put the new lid on, and in a few days found that those bees that were almost helpless had become dry and bright. I succeeded in carrying 19 of them through the winter. I lost 4 by letting them get out of food, and on the 12th of February the mercury rose to 50°, and I put them out for a flight, and lost one queen by swarming out. In the evening I again removed them to the cellar, and gave them some candy, and covered the frames with cloth and they commenced rearing brood.

November came in with colder weather than usual and I was waiting with my colonies to give them a good flight before putting them into the cellar; but severe weather set in about the middle of the month and they did not get it. I put the most of them in the cellar in November, but did not put them all in until the last of December. I had lost 4 colonies before I concluded to put them all in. I lost but 2 in the cellar which starved. This leaves me 70. When I overhauled them in February I gave all of them some candy and fixed them up for brood-rearing, and in a week's time they nearly all had commenced brood-rearing.

I leave them in the cellar and stimulate with candy until mild weather and young bees are hatching freely, then I move them to their summer stands, and cushion on the sides with sawdust cushions. I prefer fine dry sawdust for cushions at the side, as it is the best non-conductor, and will keep the bees warmest. But over the top a chaff cushion or anything that is a good absorbent. I think on top is the proper place to take up the moisture. With this method I have been successful and have avoided much spring dwindling. From 1875 to 1879 I wintered in the cellar with a loss of but 4 colonies. Last winter I wintered with success on the summer stands, and *vice versa*; but I can assign causes for so doing. We had a very mild winter, and bees could fly nearly every week all through the winter, and my hives had impure honey in them, and I wished to take a trip through Kansas.

It has only been the last 6 or 8 years that there has been any attention given to modern bee-keeping through this section of the country. There has been some excitement on the subject, but the poor bees were generally left on their summer stands without any protection, and doubtless many of our bee-keeping friends will remember the winter of 1881, as I remember the winter of 1856. That winter set in very cold the 26th of December, and continued cold until April, and we had but one colony left in the spring. But one of the best honey seasons followed that cold winter that I ever knew. This winter the loss will far exceed that of 1856, for there were many more bees to lose. I will venture that there will be a loss of 75 per cent. of all the bees throughout these regions.

This winter has been exceedingly cold with us, the temperature often below zero. Several times way down in the teens, and on the 31st of December and 1st of January it ranged through this valley from 22° to 30° below zero; at my office 26°. Now, bee-keepers of this latitude you may winter your bees safely without much care, but you cannot expect every colony that is not in the very best condition to go safely through such a long cold winter like this without some protection and care. Do men leave their horses and cattle exposed to such severity? No; they provide shelter and comfort for them. In the far West where stock is not thus provided for, this present winter has been very destructive on all kinds of live stock. Thousands of cattle have died on the prairies and Western lands. Now, friends in apiculture, who have lost so heavily. consider well where the fault lies before you give up in disgust and seek some other business that you may think will not be so destructive, and that will pay better.

Double Pipe Creek, Md., March 30.

* * *

For the American Bee Journal.

Relating to Pedigree in Bees.

WM. F. CLARKE.

It is about time that bee-keepers were seriously considering what steps ought to be taken to render the breeding of improved strains of bees a more "exact science" than it is at present. The multiplication and wide diffusion of untested and cheap queens, while it has no doubt infused a large amount of new vigor into the bee population of this continent, which had become deteriorated by in-and-in breeding, has nevertheless created "confusion worse than confounded" in many cases. Inexperienced bee-keepers who have got untested queens, have hastily concluded, when they saw how different their progeny was from that of the black queens, that all was right; they were genuine Italians, and no mistake. From their ignorance, and with no intention to mislead, hybrids of all grades have been disseminated under the name of Italians, until they have "harked back" to the common type, and lost every vestige of the golden hue that gave them distinction. Well, the cross was worth its cost, which was not much, and the common stock of the country is all the better for it.

But to our best bee-keepers—those who are thoroughly intelligent and enterprising, that hap-hazard kind of improvement is only the "small drop in a bucket" compared with what they are aiming at, and expect to see realized. They believe that we have only got fairly under weigh—the voyage of discovery is yet to be made. There is reason to think as much improvement can be made in bee-breeding as in cattle-breeding, but we are very far yet from having such an advance on the common bee, as the noble short horn is on the scrub race of cattle. Shall we get it? Yes, with the requisite painstaking and perseverance.

To-day, the chief drawback to average short horn excellence is the persistence of a certain class of breeders in demanding that a specific number of crosses on the original native shall pass for thorough-bred. Yet every well-posted breeder knows that such is the prepotency of the native stock, that the old bad blood will keep showing itself for many generations. It is the same with fowls. A significant feather or a redundant toe will tell a doleful story to the fancier, who desiderates absolute purity.

Until we can control the mating of queens (a consummation not to be despaired of, notwithstanding many failures), there will always be some uncertainty as to the absolute purity of stocks bred in the usual way. We don't yet know how far queens will fly in search of a mate. Mr. Jones says he has "proof of mating many miles away." If that be so it would seem that his plan of isolated islands is the only one that is entirely safe. I never was a friend to monopolies or patents in the bee business, but either Jones has gone to a vast amount of unnecessary expense and trouble to secure infallible purity, or there are a lot of queen-breeders who need shaking out of their boots for carelessness, and a too great readiness to guarantee purity.

Short as is the time since their introduction, the market is flooded with advertisements of Cyprian and Palestine queens. How many who offer such queens for sale can pedigree their stock? A pedigree to be worth anything must have a double action; backward to purity and forward to purity. There must be no probability or guess-work about it. There must be certainty or we are building on a shaky foundation.

As a contribution toward the discussion of this subject I venture to make the following suggestions:

1. That every imported Cyprian, Palestine, or other choice race of bees, should be certificated as to its history, shipment and delivery.

2. That queen-breeders should give their customers particulars as to the circumstances under which their stock is bred. There is a sensitiveness about guarantees which had better be superseded by something equivalent to pedigree. This is done with cattle and other stock. It is not enough for the seller to say, "I guarantee purity," he furnishes the record. In like manner, a treasurer not merely guarantees his accounts, he produces vouchers.

3. That every breeder keep a record or register of extra fine strains that develop in the course of his experience. Just as there are families among the short horns, like the Duchess tribe, of superlative excellence, so, in proportion, is it among bees. Every such strain should be cherished, carefully kept track of, and experimented with, for it is out of the aggregation of these excellent points that the bee of the future is to be evolved.

4. Now that we have at least 3 choice races to experiment with, careful record should be made of all crosses. In due time the lucky hit will be made that will give us the longest-tongued, most vigorous, and consequently most desirable bee. When that hit is made we want to know how to do it again.

5. Will it provoke a smile to propose a public registry of bees, analogous to the "Short Horn" and other herd books? Well, then, as I don't like to be laughed at I will let some one else make that proposal.

Lest anyone should suspect me of having an axe to grind I will say that I am in no way interested in queen-breeding, except as every bee-keeper ought to be; that is, anxious that all may get the best. I never sold a queen, and never expect to. Bee-keeping has always been with me a study and a pastime, "only that, and nothing more." I have never been in a position to keep bees with an eye to profit.

Listowel, Ontario.

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For the American Bee Journal.

Treatment of Foul Brood.

A. GRIFFES.

Last spring I had one or two colonies affected with foul brood, and thought when they became strong I would start them anew, but one I brimstoned, and in June I discovered more, until I found some 12. The season being poor, with very little honey, I waited until August. Just before sunset I put 3 colonies together in my transfer box and carried them about 1¼ miles, so none would come back. I put them into an empty hive that night, with nothing but starters in 2 places on the frames. The next night I took 3 more, and in a few days put 2 more together. That made 3 colonies of 8, and they filled the frames and reared brood in abundance. I fed them up with coffee A sugar to winter on, and there was no sign of foul brood to be seen last fall. There were 2 strong colonies left; these I put in my cellar and starved for 24 hours, put them in the box just at night, and kept them until the next evening, when I put them in a new hive, gave them a comb with about two lbs. of honey, and they went to work with a will on the buckwheat, and no foul brood in either of them. I found one after that, late in the fall, which I brimstoned. Now, I do not kill bees if I can help it. May be some more in the spring.

I have 63 colonies in the cellar and doing well, except one that shows dysentery a little. I expect to lose that one because there has been no time they could fly since last November.

Albion, Mich., Feb. 10, 1881.

* * *

From the Chicago Times.

How the Bees have Wintered.

PROF. A. J. COOK.

Each winter at the agricultural college, the bees are protected in the several ways advocated in the country, that we may determine after a series of years which is the safest and best. We have become convinced by our own and others' experience that non-protection is never wise, and so have ceased to experiment in that direction. The same holds true as to the method of burying.

Last autumn we placed ½ our bees in the cellar, the remainder were packed in straw one foot thick on each side of the hive. One of these latter was in a Shuck hive. All those left out and packed had 6 inches of chaff above the bees. Each of all the colonies was given some 25 lbs. of good honey. All were prepared for winter the 10th of Nov., 1880.

Owing to the severe and continued cold the bees were not able to fly from their hives for 5 months. March 10 they could fly, and all were examined. Those in the cellar were all in good condition. Of those out-doors half were dead and the others weak. The one in the Shuck hive was best off. We then put all in the cellar, except those in the Shuck hive, which have since died. The others are all alive yet, and we feel quite sure we can save all, unless the weather fights it out on this "blizzard" line all summer.

All through Michigan the same holds true. Bees in good cellars have suffered very little. I even know of some that were moved into such cellars as late as the 1st of December that have come through all right. Those in chaff hives are, so far as I can learn, from ⅓ to ½ dead. with the tendency strong towards the dead line. Those left unprotected are all dead.

Another feature not without interest in the matter is the amount of honey consumed. Bees in the cellar have eaten but very little; those out doors have consumed 2 or 3 times as much. Our bees in the cellar have eaten, in every case, less than 10 lbs.; those outdoors have in some cases left but very little honey in the hives.

I have no doubt but that the cause of the great mortality is dysentery, induced by over-eating and long confinement. Bees, unlike most insects, are not dormant in winter, but with the temperature just right—from 35° to 45°—they are very quiet and take but very little food. Thus conditioned they will bear confinement 6 months with no apparent harm. But if the air becomes much colder than this, or much warmer, especially if long continued, the bees become uneasy, eat more, become distended with the refuse in their food, and unless soon able to fly forth and void their feces are attacked with fatal dysentery. In cold weather this activity, whether of motion or functional, is to supply the heat necessary to preserve life. and the extra activity demands an extra quantity of food. The heat in a warm atmosphere becomes an irritant which produces uneasiness, and, as a consequence, more food.

I believe that with good food and a cellar which will preserve the proper uniform temperature we may bring bees through any winter safely. It has been done in all the trying winters of the past. Where there has been failure inquiry showed that the bees were in a poor condition in the autumn, or that they had a poor quality of honey, or else the cellar was not so arranged as to preserve the uniform temperature. The old idea that a cellar must be dry is not wholly correct. I have tried a cellar for the past 2 seasons that had several inches of water in it continually, and with entire success. Such a cellar ought to be well ventilated. Chaff hives usually may do as well as a cellar. But that they will prove as safe as a first-class cellar in very severe winters does not seem to be verified by the past "season."

As probably ½ of the bees in the Northern States are dead, we may well look for a corresponding decrease in the honey production; and with a lessened supply will come an increased demand and high prices. The prospect for an unusual production in California will only partially make up this deficiency.

Lansing, Mich.

* * *

For the American Bee Journal.

Top vs. Side-Storing.

JAMES HEDDON.

Yes, I once heard of, and used, 32 hives that were strongly advocated, as *exclusively* side-storing hives. They were called the "New Idea" hive, and were invented by Adair, Gallup & Co. They stored both comb and liquid honey on one side or both sides of the brood-nest. All of us who were induced to leave the old standard Langstroth and adopt the long hive, either wholly or in part, soon saw our mistake and returned, like prodigal sons, to former habits.

Next, I conceived the idea of a combination of top and side-storing, and made a dozen or more hives for that purpose (one of which still occupies valuable room about my houses), but soon discarded them as no better than the all-top-storing Langstroth, and more than twice as much labor to manipulate.

Now, I do consider the shape of Mr. Doolittle's hive faulty, because I, like him, prefer small hives, which are more easily kept chock full of brood, and which I have never seen occasion to disclaim since I so warmly advocated them, some 6 or 7 years ago at our State Convention at Kalamazoo; and if small, they cannot be extremely high unless very narrow and short—not very long, unless very narrow and shallow. For wintering I prefer fewer ranges of comb and longer ones, as bees move back and forth with the ranges easily, when they cannot do so across them. The 8-frame Langstroth hive seems to me to be about the happy mean between the extremes. It is narrow enough for wintering, it is shallow enough and has top surface enough to avoid the necessity of putting boxes at its sides, thus causing the master to place them twice before removing them. Is it not very plain that one man can care for double the number of colonies with my case system that he could do with your method, where the surplusage has to be handled over twice or more before its removal?

Why, side-storing was the original plan, before the skillful Langstroth or any other bee-keeper invented open top frames, and no doubt has been used by hundreds of apiarists years ago, both exclusively and in conjunction with the newer and better plan, yet for once I am on the popular side of this question, as hundreds to one use and swear by the flat top-storing hives. Still, it might be wrong, but I think not. I bring as evidence the well known fact that the very first place that bees use the first wax in the spring is in the top of the hive, between the top bars and cover. If I used a hive that had only about one square foot top surface, and used boxes 6 inches high, I do not know but I should look more kindly toward the complicated system of moving boxes from the wrong place to the right one about the hive, rather than tiering up such high boxes whose tops were already so far away from the center of the brood nest. But with hives with once-and-one-half the top surface, and shallower combs used under sections only 4¼ inches high, all full of comb foundation that is so well made the bees take it for young combs, I think that the man who would change to any other arrangement must see something that I cannot.

When the first twenty-four 4¼ sections are ⅝ full, or less, if the bees seem anywise crowded, up they go and under goes another case of 24 more, so fixed that the labor is about one-half done to begin with. Now we have 50 lbs. capacity on the hive, and the topmost piece of comb in the whole arrangement is less than 18 inches from the lowest cell in the hive. How much shorter is the distance from cell to cell in Mr. Doolittle's arrangement? If it should happen, as it sometimes does, that more room is needed before the first case is all complete, shove under another, or two of them if you choose, and take my word for it, all will go along satisfactorily.

Like Mr. Doolittle, I speak from experience. About 10 years ago I used a 40 lb. box. It was 15 inches square, and about 7 high, and contained top-bars. It was used on a bar hive of its own size and 13 inches deep. I tiered up 4 of them on one hive at one time, and had them all finished, and a fifth one nearly half completed when the season closed. I also tier up the 5x6 sections with about 15 colonies out of 100, each tier containing a capacity of 45 lbs., and the system works perfectly here. There may be a difference in localities, but I feel sure that the 1 lb. sections in the shallow cases will work well tiered up anywhere.

I hardly ever give my "experience" to prove my opinions, as it is so very difficult to prove the experience first, but thinking that perhaps many readers will be as willing to take my word in this controversy as I am that of my esteemed friend Mr. Doolittle, I will further say that I once obtained 410 lbs. of surplus honey from one colony in one season, 48 of which was extracted from the brood chamber, but 362 of which was comb honey taken upon the tiering up system from the top of one of those 15 inch square hives, 13 inches deep, in boxes about 7 inches high, and not a particle of starter of any kind used at all. Now, reader, if you had met with the same experience with such fixtures as the above described, would you be afraid of the "tiering system" with the modern appliances, as described further back? I agree with Mr. Doolittle, that bees will store honey faster above than at the sides, and I also claim that where they prefer to store nectar they prefer to construct the receptacles to hold it. Above is the heat and odor of the hive, also is it further from the entrance (where envious enemies can come), and, according to Mr. Langstroth, the very place where bees could and would soonest put their surplus combs of honey.

I wish to say to Mr. Doolittle, that when I find a queen that fails to fill my 8 frames reasonably full of brood (outside and over all), I supersede her at once from my best stock.

I have been talked to considerably because I did not use 10 Langstroth frames instead of 8, but I do not care to whip up my queens at all, so long as they are normally prolific. Rather cut down the number of frames, because, recollect, the capital lies in the combs and hive, and not in the queen. I have no trouble with clogged brood chambers, because my sections have perfectly free communication with the brood nest, which is flat, and as they are well supplied with that which is comb in 12 to 24 hours at the option of the bees, they leave the cells below for the queen, knowing that she will not want to commence a brood nest in so small sections of comb as 4¼ inches square. All these points have been thought over and put to test during the past 5 years.

I am aware that different localities demand different systems of management; also, that these different systems suggest different forms and sizes of hives and other fixtures. Nevertheless, I hope some good may grow out of the earnest and pleasant discussion of all subjects pertaining to our favorite pursuit.

I am at present much hurried with home labors, besides 6 regular communications promised each month, and I will not be able to reply to Mr. Doolittle's friendly criticism upon my ideas of bee disease till the first issue in May next, when I will do so with pleasure. I feel sure of my premises, and of my ability to make them clear to the readers of the BEE JOURNAL.

Dowagiac, Mich., April 11, 1881.

For the American Bee Journal.

Artificial Swarming.

HENRY ALLEY.

Hundreds of bee-keepers will make an effort during the coming season to build up their apiaries destroyed the past winter by the severe cold weather. How can the old combs be best utilized and colonies increased in the most economical way? I will give my views on this point as I have had some experience in this part of the business. Artificial swarming will have to be resorted to for rapid increase of colonies. It should not be attempted too early in the season. Old colonies should not be disturbed until they are full of bees and honey, or, in other words, till they are ready to swarm.

Then if the new colonies are to have the old combs only a moderate quantity of bees should be taken out and at the proper time a queen gives them. Three quarts of bees will make a fair sized colony. The parent colony should then be left 10 days at least (14 days is much better) before it is disturbed again, for this purpose this can be done as often as every 2 weeks, provided the old colony retains the queen. Do not remove the queen and bees too; artificial swarming in that way would soon ruin the best apiary. If the parent colony is forced to rear queens and bees, too, artificial swarming would not be a success. A good queen is worth $2 on an occasion like this.

The reader will readily see that if the bees and queen are removed from a hive the remaining bees will have up-hill work to build up again. What bees remained could not rear a vigorous and strong queen, especially if the old colony is removed from the stand and the new hive put in its place.

If queens are given the new colony, 3 times as many colonies can be made in the course of the season as could be done if the old colony is forced to rear queens every time.

Artificial swarming can be practiced up to August 10. I would not advise it done later than that date, because the colony would not have time to rear a sufficient quantity of bees to insure safe wintering. Old bees cannot stand the rigors of winter, and in fact their lease of life would run out before spring opens, in any event.

Natural swarming cannot be depended upon for rapid increase. With liberal feeding and supplying the new colonies with queens 5 good strong colonies could be made from one, between June 1 and Aug. 10. I do not advocate too rapid increase. If forage is not abundant feeding must be resorted to. Do not let the feeding go till too late in the season, trusting the bees to get their living. Commence to feed as soon as the colony is ready for business, and that will be the next day after they are put into the hive. If you would make this whole arrangement successful do all the feeding not later than Sept. 20. A little food might be given later to stimulate breeding. All the syrup given them should be sealed up before cold weather sets in or it would sour before spring, and dysentery might be the result.

My plan for feeding is this: To 6 lbs. of coffee or granulated sugar add 2 qts. of water. Dissolve in hot or cold water.

The best feeder for general use is a pint "improved Mason fruit jar." These jars have glass tops. Remove that and substitute a tin one. With a brad-awl make from 4 to 20 holes; for slow feeding make from 4 to 6. When a honey board is used make a hole 1½ inch in diameter and place the jar over it. If feeding at the entrance is desired make a box large enough to take in the jar, and raise it from the bottom so that the bees can pass from the entrance of the hive under it.

To introduce queens and make new colonies at the same time proceed thus: From a strong colony take one full comb and place it in the new hive, filling up the hives with empty combs; then shake about 3 qts. of bees in front of it. When they have all run in close the entrance with wire cloth. If the hive has a portico nail the wire on front, or better still, have a screen made for the purpose. The idea is to give the bees plenty of air. Leave room between the entrance and wire cloth for the bees to fly or run about. Keep the bees shut in 36 hours. Keep a wet sponge against the wire screen and they will not suffer for water. If this is done towards night they can be let out the second morning after, and being few will return to the old place, as they will become reconciled to the loss of the queen. Let the old hive remain in its place and put the new one 5 or 6 rods away. At the end of 2 or 3 days give the bees a few puffs of tobacco smoke and let the new queen run in. Do not put her near the hive till she is introduced. In the course of 8 days examine the brood given them and if they have any queen cells destroy them. Combs taken from the hives where bees have died with dysentery can be used without danger. I have tried it.

Wenham, Mass., April 5, 1881.

CONVENTION
NOTES

Rock River Valley.

The Rock River Valley Bee-Keepers' Association met in Monroe, Ill., March 29, 1881. Few members being present (owing to the impassable condition of the roads) the forenoon was spent in general consultation concerning the welfare of the bees. At 1 p. m. the Convention was called to order and the following officers were elected for the ensuing year:

President, A. Rice, Byron; Vice-President, H. Everton, Monroe; Secretary, D. A. Cipperly, Monroe; Treasurer, J. J. Crill, Monroe.

The Treasurer's report was read and approved. Members reported as follows:

Number of colonies in the fall 207; number of colonies at above date 44. Two reported surplus: H. Everton, 300 lbs.; E. Lucas, 600 lbs.

E. Lucas reported no loss from 38 colonies, with plenty of honey and brood.

The cause of bees dying with plenty of stores, both in cellar and on summer stands, was requested to be answered in the AMERICAN BEE JOURNAL.

[For answer see next page.—ED.]

The President's address is as follows:

President's Address.

Ladies and Gentlemen:—We meet today at the close of one year's existence of our Association, to discuss questions of interest pertaining to bee-culture.

Our meetings have been attended with a good degree of interest, notwithstanding the unfavorable season for bees. Our interests have been one, our actions harmonious—"United we stand, divided we fall." I believe we shall find it not only pleasant but profitable to meet occasionally to impart what we know, be it much or little, about the management of bees. When each of us comes to get, and none to impart our knowledge (which I trust will never be), it would be advisable to indefinitely postpone our meetings.

The different races and grades of bees, the different ways devised to secure the largest income for the smallest outlay, is what we have all been striving for until it would seem impossible to more than repeat the words that have been spoken many times before; therefore nothing new will be expected of me at this time.

Of the different races of bees in existence there is one that has not had its share of attention, although it has associated itself intimately with the whole human family from our first parents to the present time, and that is the "may be." Did not mother Eve say to her husband, "take and eat of this fruit (although forbidden); may be it will not hurt us, may be it will do us good?"

At the National Convention, at Chicago, we understood from an able bee-master that we might take a colony ever so carefully in our arms from the apiary to the cellar, may be it will die. Take another colony on a barrow, however roughly we handle it, may be it will live. We further understood from the same gentleman that one colony might go South and may be gather healthful honey and live. Another colony go North and may be gather poisonous honey and die.

Have not most of us had too much to do with that may be? Do we not too many of us too often say may be the winter will be warm and the bees need no care; maybe it will be as well to pack or cellar the bees in December as November; may be they have honey enough or will gather enough, etc., in ways almost without number? That may be proves fatal to our bees. I will leave the may be, only saying that it is not and never was a scientific *bee*.

Our attention is often called to the differences of opinion about the management of bees. One gentleman at the Convention in Chicago said in wintering bees in the cellar it is of first importance to keep the cellar dark; another said that light does not disturb his bees in the cellar, that he does not darken his windows and leaves the door open in the daytime, as occasion may require, with no injurious results. We have all noticed that with the shades of evening our bees return to their hives, and go forth to their labor with the light of day, except it is stormy or too cold for them to fly, and I have found bees improving the first opportunity to leave the cellar after opening the door, when the atmosphere was sufficiently warm for them to fly, and I think it would be impossible for us to educate them otherwise.

The relative value of the imported to the home-bred bees has, of late, been somewhat discussed. The resolutions of the National Convention, at Cincinnati, are as follows:

1. Resolved, That the importation of pure Italian, Cyprian, and Palestine bees into North America ought to be encouraged for the sole purpose of adding new and different strains of blood to that which we already have.
2. That the strains of Italian blood which we now have has reached a higher standard of excellence than is to be found in the native home of the Italian.
3. That queens reared from pure, selected, home-bred Italian mothers, should command at least as high a price as those bred from imported mothers, where pure Italian stock is the sole object desired.

I think the 2d and 3d resolutions are rather in conflict with the 1st, for how can we import and sell at the same price as those that are only bred from home stock? The question for us to decide is, which will we patronize—the price being equal—those who breed from imported or those who breed from home stock? Most of us will always pay the importer the higher price.

The past year has been a failure with bees and honey to nearly all in this vicinity. Very few report any surplus, therefore the question to solve is, what shall we do? Shall we give up the business or shall we try more and better care for our bees in winter, spring and summer, giving the little attention they need when it is required, carrying our bees through to the time when flowers give them a bountiful supply of the best of all sweets; when they in return will reward us by filling our surplus boxes? How we shall care care for, and how and what we shall do for the bees I must leave for the convention to solve.

A general discussion followed.

The Convention will meet at Monroe Hall, on Tuesday, May 24, 1881. A general invitation is extended to all that are interested in the management of the apiary. D. A. CIPPERLY, *Sec.*

☞ The Eastern New York Bee-Keepers' Association will hold a Convention in the Court House at Schoharie, N. Y., May 10 and 11. All interested in bee-keeping are cordially invited to attend. W. S. WARD, *Sec.*,
Fuller's Station, N. Y.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., APRIL 27, 1881.

Welcome, Spring! Come at Last.

Once more the robin's cheerful piping and the bluebird's merry song can be heard in the early morning, as the golden sunshine tips the hill-tops, and the hills and valleys are arraying themselves in their gorgeous robes of emerald green. Soon dandelions, maples and fruit trees of all kinds will be in bloom, closely followed by an abundance of white clover, the leaves which are already becoming very numerous; a little later will follow a heavy basswood bloom, and we now believe the goldenrods and other wild flowers will be equally plenty. We hope our bee-keeping friends are now prepared for a vigorous season's work; if not, they have no time to lose, and especially is this true of those who are obliged to re-stock anew. Bees cannot now be moved too soon. Those expecting bees from the South should have them shipped at once, before the hives are filled with new honey to daub the bees; those about to purchase bees should do so at once, thereby securing the first swarms, which will soon be cast in the South. We think now is the best time to buy, as every indication points to much higher prices, as soon as bloom is well developed and the prospect for a heavy honey flow and a good market are verified.

* * *

☞ Quite often we receive a rather uncourteous letter because the BEE JOURNAL is discontinued when the time is out that has been paid for. We try to please all our subscribers, but it is not an easy task for us to determine who does and who does not want it so continued. So we must ask to be informed on the subject. The following letter is just received and is just the kind of a notice we wish all would send who desire to have it sent without intermission. We then put this mark, ‖ after the name on the wrapper label, and when so marked do not stop sending the JOURNAL until we receive an order from the subscriber to do so.

"Please continue my JOURNAL right along; if I do not send the money on the day it runs out I do not want you to stop it, for I want every number as soon as it is published. I will send you the money just as soon as I can make it convenient to go to the post office to get a money order. W. C."

Now, if all who desire it so continued would drop us a postal card, or mention it when they are sending a remittance, it would save us much trouble and themselves the annoyance of having the JOURNAL stopped.

With this number several hundreds of subscriptions expire, and we hope all will renew at once or else send us notice by return mail if they desire its continued visits.

* * *

☞ The next meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held at H. W. Lee's, 2 miles n.w. of Pecatonica, Winnebago county, Ills., on the 17th of May, 1881. J. STEWART, *Sec.*

Review of the Situation.

From the East Saginaw, Mich., papers we learn that Dr. L. C. Whiting has received reports from parties owning at the commencement of winter 1,359 colonies of bees. Of this number only 432 are now alive, and many of these are weak—and the end is not yet.

The *Herald* gives the following table showing the number of colonies last fall and the number lost:

	No. last fall.	No. lost.
Orlando Cole	12	5
J. Lyon	3	3
Jas. Litchfield	18	17
Jas. Ure	60	10
O. J. Hetherington	250	249
— Brown	16	14
John Rey	18	17
Conrad Fey	32	30
C. W. Kimball	30	30
Wm. C. Mower	12	..
C. S. Grant	20	..
— Costelle	93	93
Frederick Suer	7	7
Lucy Wilkins	50	2
Samuel Goodrich	106	105
H. Cheeney	17	17
H. Cheeney, Jr	11	10
— Crawford, Chesaning	10	4
— Mitchell, "	25	25
— Jones, "	16	7
— Kunnoff	30	24
— F ep	6	6
James Adams	5	5
— Bailey	9	9
— Sintle	15	12
Wm. Smith	12	12
Davis Hinckley	15	11
— Green	30	10
Man at Flint	100	78
Wm. B. Cobleigh	28	27
Wm. McNeller	9	9
Wm. Leland	8	6
John McGregor	58	20
Levi Falker	33	31
Chas. Fort	13	5
Otto Vaasse	6	6
Otto Vaasse & Bro	4	4
Hiram Fall	6	6
Ed. Munger	8	5
— Sheehe	30	30
— Beeman	8	8
— Teff	40	25
Dr. L. C. Whiting	90	50

Of course we give the above table from the *Herald*, without vouching for its correctness, and without the knowledge of the parties named except Dr. Whiting, who very kindly sent us the papers.

It will be seen that the Misses Wilkins, of Farwell, have been the most successful, losing but 2 colonies out of 50. These ladies are among the most intelligent and progressive bee-keepers—their honey is always very attractive, and it is a pleasure to know that they are so successful. On our Museum shelves is a single-comb box of beautiful honey from the apiary of these ladies. It has been there since 1877, and has never leaked a particle, but looks as enticing to-day as ever. It was purchased where they sold their crop, without their knowledge.

We make the following extract from a recent letter from D. D. Palmer, Mercer county, Ill. Mr. Palmer's neighborhood has heretofore been one of the most successful bee-keeping districts in S. W. Illinois. The initials given represent apiarists of the highest order of intelligence, and will be readily identified by persons familiar with the reports of the Western Illinois & Eastern Iowa Conventions:

"I had 240 colonies, none left; S. 180, 20 left; L. 50, 3 left; H. 60, 20 left; L. 800, but few if any left; C. 163, 8 left; B. 56, 16 left; H. 40, 17 left; H. 15, 6 left; K. 17, 7 left; and so I might go on through the list. Those that are left are weak, and the end is not yet. The words of Thomas Paine are applicable to us bee-keepers, "These are the times that try men's souls."

James Heddon, Cass county, Mich., puts his loss at one-half, and those left are very weak. G. M. Doolittle, New York, estimated his loss at 40 per cent., and was not yet "out of the woods." A. F. McKenrich, Iowa, reports almost a total loss in his locality, and C. W. Hellems, St. Catharines, Ont., gives 90 per cent. as the average loss there; at Hartford, Wis., there are probably less than 100 left out of 462. T. B. Quinlan thinks not more than 1 colony in 10 has survived around Cedar Rapids, Iowa. Some weeks ago Mrs. Dunham, Brown county, Wis., thought very few bees would survive in that district. I. R. Good estimates the loss at nine-tenths in Northern Indiana.

Losses in Maryland, Pennsylvania, Ohio, Kentucky, Missouri, Kansas, and all States north of this line will prove unprecedentedly heavy. Those left are generally in very light condition, and will require close attention and scientific management to fit them for a vigorous summer campaign.

It will be observed, by a study of the mortuary reports published in our letter department from week to week, that no Northern locality has been exempt from heavy loss, no manner of packing has been a guaranty of success, cellars have been more or less faulty, caves were transformed into charnel houses, cornstalks, straw and hay covered over them have failed to retain life, and the angel of gloom has found them as surely, and perhaps more quickly, where not prepared at all. Nor has any particular style of hive earned especial encomiums; the best approved frame hive has shared equally the odium with the log gum and box hive, and patented clap-traps have failed as life-insurance policies. The bees have to a great extent died, and no bee-keeper, however learned and scientific, need blush to acknowledge that *his* bees, too, have been decimated by the long and unprecedentedly severe winter just passed.

We observe that at the late session of the Rock River Valley Convention, at the roll-call of colonies only 44 were reported living out of 207, 38 of which were brought through by Mr. Lucas without loss. We were requested to give "the cause of bees dying with plenty of stores, both in cellar and on summer stands" (see page 131). We must evade the question by the general answer, "The long, cold winter;" and yet, although an evasion, it is the only correct answer that can be given. During a mild or ordinary season, the requisites for successful wintering are not nearly so exacting as for a terribly severe and protracted season. A little defect in food is easily cured by one or two purifying flights in January; if all are old bees, the mid-winter thaw gives them a new lease of life, and the queen frequently takes advantage of it to deposit a few eggs; if the majority are new bees, a flight (which perhaps some have never had) gives opportunity to change position, and invigorates them for that "masterly inactivity" so necessary to a prolonged life; if perchance the cluster has become divided, a broken winter gives opportunity for reuniting, and for diseased bees to become disengaged from the mass: if dampness pervade the hive (which is more or less the case in winter) it does but little if any harm so long as not congealed, but with extreme and protracted cold, it begins freezing at the outside, and chilling to the centre till it comes in contact with the bees, when they become benumbed, their physical organs cannot perform their functions, proper digestion ceases, and the bees die. The foregoing remarks are more or less applicable to all cases of out-door loss.

The losses in cellars and caves so prevalent the past winter are equally attributable to its length and severity. A successful confinement of 4 to 5 months requires that all the minutiæ should be very exact, and it is easy to imagine how the absence of the least requisite to success may become the principal factor in producing death. Were it only the lesser bee-keepers or the novices who had suffered the heaviest losses, it might perhaps be attributed to ignorance or negligence in preparing them; but when we take into account the heavy losses by so many specialists and scientific bee-keepers, we cannot but look upon such a charge as an insult to intelligence. All the approved methods have equally proven failures.

We have been much interested in a series of experiments being conducted by Mr. E. D. Godfrey, of Iowa, and would be pleased to hear from him the result of last winter, together with his method of preparation, and the general conclusions reached.

But with the bee-keeper all is not lost, though he has lost all; with his hives and combs left, he still retains one-half or two thirds of his investment. The fruit-grower expects frequent failures in his crops, and is thankful that his trees survive without injury; the farmer's wheat winter-kills, when he plows up the ground in spring and plants anew in corn or something else, and replants if frost kills that; the stock-raiser who loses part of his flock, gives the remainder better attention, and patiently toils two or three years to repair his losses; the merchant has his seasons of loss, but with renewed *push* and activity makes up for the dull times when the "good time coming" has arrived; the stock-broker loses on his World-Belt Railway, projects a Short-Cut Line to the Moon, waters his stocks, and rides on the fleecy clouds of imagination to success; the speculator invests in anything possible, loses a part or all, compromises with his creditors, and with unconquerable zeal pushes on to success, a living monument to pluck; and the energetic bee-keeper, although many bright dreams may have vanished, will not despond, but without taking time to count the untenanted hives begins immediately to estimate the number he can refill. If the bees are all dead, he procures enough for a comfortable start, goes to work with a will to retrieve his losses, and while keeping time with the musical hum of his bees, in the "Sweet by-and-by" will reap a more than commensurate recompense for his vexations and disappointments.

* * *

☞ Dr. N. P. Allen, President of the National Society, intends to be present at the Texas State Bee-Keepers' Association, at McKinney, Texas, on May 12 and 13, by invitation of Vice-President Collins. He is also invited by Vice-President Hipolite to spend a few days in the interest of bee-culture in Arkansas. He also intends to be present at the Missouri State Association if the time be fixed for the 1st week in June; being specially invited by Vice-President P. P. Collier. Dr. Allen starts on this trip during the first week in May, and we shall expect many items of interest from him concerning bee-culture in these States.

* * *

☞ The Southwestern Wisconsin Bee-Keepers' Association will meet at the residence of W. B. Wallis, at Darlington, Wis., on Wednesday, May 11, 1881, at 10 a.m.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Late Season in England.—In the London *Journal of Horticulture*, Mr. Frank Cheshire says:

Few seasons would show more clearly the advantage of a special calendar than the present one. The lateness here is extreme, the temperature low, and the "weather forecast" not encouraging. In early springs, peach blossoms have been open on a south wall of ours on March 1, but now, April 4. the fully swollen buds are yet waiting for a change before expanding.

Buying Bees.—The *Indiana Farmer* gives this good advice:

To those who contemplate buying bees we would say do so at once, buy now so as to take advantage of the season's work. If you cannot afford to buy full colonies, get good, strong nuclei, buy them early and they will grow into good colonies during the season. It is best to buy as near home as possible as express charges are very high. Send to responsible dealers and stipulate that the bees must come early, so as to have advantage of all the increase of the season.

Feeding Bees in the Spring.—In the *Prairie Farmer* Mr. L. Harrison gives the following as her advice on this very important subject, at this season of the year:

Naturalists teach us that insects during the larvæ state consume more food than they do during the remainder of their life. The queen bee is a wise and prudent mother, and counts the cost of their production, and governs her procreative powers according to her income. She regulates her laying, not by the sealed stores in the hive, but by the amount brought in daily by her subjects.

If we wish to have our bees populous, to profit by the early bloom, we must practice some strategy upon the "old lady," by which she is made to believe that the honey flow is continuous and abundant. Some bee-keepers recommend candy, of which sugar and flour of some kind are the principal ingredients. The objection to this kind of food is that bees must have water in order to manipulate it, and in order to procure it must leave the hive in inclement weather, and may get chilled and perish. Thin uncapped honey is always found in the spring adjacent to the brood, and we should imitate nature as nearly as possible. Warm diluted honey, nearly as thin as it is when brought home from the flowers, and a substitute for pollen, either in unbolted flour from wheat, rye or peas, should be supplied them in such a way that they would appropriate it to their use. There are many ways of feeding honey or syrup in vogue—such as a tumbler covered with muslin and inverted over the cluster, or a fruit can with perforations in the cover. It matters not how, so that the warmth of the hive is retained, and that the bees feed readily from it.

We have two feeders on some of our hives, one containing thin honey and another with unbolted wheat flour, and although to-day, March 30, is windy with the thermometer at noon only 2° above freezing in the shade, the bees are rolling and tumbling in the flour, and working it into little balls upon their legs. In some localities it is an advantage to feed flour, in sheltered nooks in the open air, but here it is different. The overflow from the river draws the frost from the roots of the elms and willows so that they are in bloom almost as soon as it is warm enough for bees to fly.

Plenty of sealed honey should be in the hive during the spring as a safeguard against starvation—a sort of lifeboat or contingent fund, to be drawn upon during an emergency, such as a cold storm.

SELECTIONS FROM OUR LETTER BOX

Early Drones.—My 20 colonies of bees, put in the cellar Nov. 13, were taken out a few days ago, 16 living, and one of those much reduced, being in the cellar 117 days, in Langstroth frame hives, without division boards or cushions, and the same as they stood in the apiary in summer. This is the best result in wintering bees that I can hear of, in this county. B. lost 21 out of 24, cellar wintering; P. 13, all he had; and 4 other bee keepers, having 82 colonies, lost all, mostly of dysentery. I have taken no pains to gather information as to the extent of the mortality of bees in this county, but what I hear is truly discouraging. Please tell me in the Bee Journal why one of my colonies has plenty of drones flying, and the drones are associating with the other colonies; some colonies are killing them, while others are not molesting them. This colony had an Italian queen introduced last September, purchased from I. S. Crowfoot, of Wisconsin.

H. I. Brichener.
Decorah, Iowa, April 11, 1881.

[The queen is either an old one or physically deformed, so as to make of her what is termed a "drone-laying" queen, and in either case should be superseded.—Ed.]

All Gone.—On Nov. 12 I put 100 colonies in a cave. They had plenty of honey, all are dead but one; I packed 10 with chaff and corn fodder and they are all dead but one; leaving me 2 colonies out of 110. Mr. Brown had 200 colonies in a cave and all are dead but 5. Mr. Brown and I have put our bees in caves for 8 successive winters and have had success till this winter. Mr. Ward had 22 colonies in the cellar; all are dead. Mr. Wilson had 25 colonies in a dry cellar with plenty of honey, and all are dead. Mr. McAllister and Mrs. Kendall had 4 each in cellars and all have died. Mr. Cole had 9 left out of 14. There are others in this county but I have not heard from them yet. I am well pleased with the Weekly Bee Journal and would not do without it.

A. F. McKenrich.
Camanche, Iowa, April 11, 1881.

Bees in Good Condition.—I had last fall 18 good colonies, and have 18 left now, all in good condition. They were wintered on the summer stands. I am confident I can winter bees as safe as other stock. S. H. Hutchinson.
Mechanic Falls, Maine, April 10, 1881.

Lost 3 out of 60 Colonies.—At least 65 per cent. of the bees in this locality I think are dead: quite a number having a few colonies last fall have lost all; others having 20 to 40 colonies have only 2 or 3 left. Of the few of our most successful bee-keepers are Messrs. Hoffman, losing 35 out of 120; Drake, 10 out of 45; Clement, 60 out of 100, and Gans, 50 out of 100. Bees are wintered here mostly in cellars. I put 60 colonies on the 5th of Nov. in a bee house, lined and filled with a foot of sawdust, and up to the present have lost only 3 colonies. I have all Italians, except one colony of Cyprians. I cannot do without the Bee Journal.

A. M. Wolcott.
Monroe, Wis., April 18, 1881.

Safely Wintered.—After a confinement of 160 days my bees are in excellent condition, considering the severe winter they have passed through, being the most severe we have had for 20 years. Last fall I had 32 colonies, all natives but one colony of hybrids. I prepared 13 of them with chaff cushions on top in Langstroth hives. The rest were box hives. They were put in the cellar Nov. 30, and brought out April 9, all in a thriving condition with the exception of 4 colonies which I shall have to feed for a short time as they were late swarms. Many have lost heavily in this section. I find that all my neighbor bee-keepers and box hive men who do not take a bee paper are the heaviest losers in bees. My bees were wintered at the Lake View Apiary, belonging to Mr. R. Squier, where there were 60 colonies and all came out alive. I did not think at first that I should like the Weekly as well as the Monthly, but since we have the news fresh every week I like it much better. I await its coming as that of an old friend. It is just what we who are engaged in bee-culture need. Success to the Weekly Bee Journal. J. G. A. Wallace.
Brighton, Ontario, April 9, 1881.

Will Hogs Destroy Sweet Clover?—Royal jelly is young brood in the white state. In 1855 or 1856 I saw legs and breasts plainly in it in a colony preparing to swarm which had no time to properly cut it up fine. I am satisfied that Rev. Mr. Mahin is right about bees and grapes. Birds are the main cause of damage to grapes. Will hogs destroy sweet clover roots, if they are "running" where they can get at them?

Louis Hofstatter.
Louisville, Ky., April 1, 1881.

[We do not know; but imagine that there is little about the tough, fibrous roots that even a hog would care to eat unless closely pastured upon it, and then would root it up only to keep busy.—Ed.]

Colonies Good and Strong.—I put 10 colonies in the cellar last fall and although they have had but one flight since October until March 5, they have come out good, and strong in numbers, but some a little short of stores. About 6 bee-keepers around here report ⅛ to ½ dead. I like the Bee Journal very much. Samuel Sanderson.
Elmira, Ont., April 18, 1881.

Expects a Fair Crop of Honey.—My 400 colonies were put into cellars early last November, and are there still, mostly in good condition. If the weather is sufficiently warm so that they can be taken out soon, my loss will not exceed 10 per cent. I attribute my success mostly to the excellent condition my bees were in last fall, and to the cellars in which they were wintered. There are a few others here that can give reports equally good, but not many. There were perhaps 3,000 colonies in this county last fall, and from all accounts there will be less than 1,000 left this spring. The loss is something unprecedented here. Nearly all our small bee-keepers have lost all they had. I have spoken with a number that had from 25 to 100 colonies, and their loss is fully 75 per cent. Farmers generally have lost all, owing to the insufficient care given them. Possibly the problem how to winter bees successfully will be solved by the experience of this winter: if so, the loss will not be wholly without a gain. Appearances here are that the yield of honey will be fair in spite of the greatly reduced number of laborers. White clover and basswood, our chief honey sources, are very promising.

Jefferson, Wis. George Grimm.

Fresh Air in Cellars Necessary.—The bees in my cellar, described in the Journal, page 25, came through without the loss of a single colony, and all are in excellent condition. Another cellar that was not as well ventilated, and that had no stone floor did not winter as well, one died and several were weak. This proves to my satisfaction that fresh air and plenty of it is what bees want to winter well. I shall prepare all my cellars like the one described in the Journal before another winter. The thermometer in this did not vary 3° all winter. E. A. Thomas.
Coleraine, Mass., April 16. 1881.

Bees All Right.—I took my bees from the cellar on April 16, after 5 months' confinement, and from 41 colonies and 3 nuclei I have saved 38, all strong except 2 that are queenless, which I shall double up with 2 that are rather weak. I am cleaning them up and feeding them granulated sugar and rye-flour. Bees are scarce in this vicinity; many bee-keepers have lost all. I wish the Journal great success. T. Lashbrook.
Waverly, Iowa, April 18, 1881.

Loss from 80 to 100 Per Cent.—Fully ⅞ of the bees in this country which could fly last fall will never do so any more, and as a consequence beeswax will be cheap. The old fogy bee-keepers who knew so much last fall have now very little to say about bees. I heard one say a few days ago that he thought that the honey had soured in the hives and killed the bees. I think he was a little sour on the bee question, too. I have lost about 80 per cent. of mine, others report a loss of 23 out of 25, some 100 per cent., and one of the most noted bee-keepers has lost 100 out of 138 (he is reported to have gathered and sold ten tons of honey from his bees last fall), so you see that he understood the business, but did not save his bees. Those that I saved had dry goods boxes turned upside down over the hives, and were packed between with straw in addition to the chaff in the hives. Scientific bee-keeping will stand a better chance now, for most of the box hive men have given up the business. Bees about here will have better care hereafter I hope. With renewed interest in bee-culture, I wish the Bee Journal success. Geo. M. Lawrence.
Warsaw, N. Y., April 18, 1881.

Good Prospects.—Bees gathered the first pollen this season on the 14th inst., from the elm. Brood rearing is progressing nicely. The white clover is green and growing. It is thick, and we have good prospects for a good honey season. J. P. Moore.
Morgan, Ky., April 19, 1881.

Button Willow.—I send you some cuttings of a shrub that beats anything for pollen for bees that I ever saw. If stuck in some damp ground they will grow just like willow-cuttings. Please give name. Spring is one month behind time. D. A. Pike.
Smithsburg, Md., April 18, 1881.

[The shrub is commonly known as button willow, and belongs to the numerous willow family. It grows quite plentiful in the Central and Western States, and is worthy of cultivation as well for its beauty as its enormous pollen yield.—Ed.]

Mortality of Bees in Iowa.—I put 60 colonies in the cellar last fall, and have to-day taken out and examined them; there are only 25 alive, and some of them very weak. In this locality there is not over 1 colony in 10 left; some have lost all. I understand that Mr. W. H. Furman has only 7 or 8 left out of 60; another man lost 40, all he had. This is a poor prospect for supply dealers. I like the Weekly Bee Journal very much.

Thos. B. Quinlan.
Cedar Rapids, Iowa. April 15, 1881.

Bees in Good Condition.—I commenced the last season with 8 colonies, now I have 9 in good condition (having sold one I have only 8 to commence the season with.) My bees gathered some pollen this afternoon, the first this season. Jos. H. Fisher.
Napoleon, O., April 18, 1881.

Wintered Well.—After 20 weeks confinement in the cellar I have taken my bees out, and find 5 dead out of 146. I put the hives close together in tiers, one above another, 2x3 scantling between. My bees are as strong and healthy as I ever knew them to be in the spring. I like the Weekly very much.

A. Jennings.
Medusa, N. Y., April 18, 1881.

Overstocked With Bees.—Last fall I reduced my colonies about 40, leaving 75, which wintered without loss. My greatest trouble is to prevent increase. As there is no sale for bees here I am certainly overstocked. C. Weeks.
Clifton, Tenn., April 7, 1881.

Lost None.—I put my 114 colonies in the cellar last November and took them out March 28. A few had the dysentery but I have lost none yet. I took them out a little too soon for it has been cold ever since, but they are doing well. Few bees are left here. O. C. Blanchard.
Ironton, Wis., April 20, 1881.

Bee Locations and Hives.—This county is thickly settled; we have plenty of bloom of all kinds, and a running stream of water within 100 yards of my apiary; white and red clovers are abundant, and bees are few near here. Is this a good location for bees?

2. Which kind of hive do you prefer?

3. I am a carpenter and can make my own hives—are there any patents to hinder me from making a good hive?

4. Will it hurt to let bees fly when snow is on the ground? I like the Bee Journal very much. F. V.

Cambridge City, Ind.

[1. With plenty of bloom (which implies summer and fall flowers are abundant), a running stream of water (which in Indiana is generally an indication of basswood), and an abundance of white and red clovers, we cannot possibly imagine the absence of anything but plenty of bees to make it one of the very best locations.

2. We prefer the standard Langstroth. Many very successful and scientific apiarists, however, prefer a shorter and deeper frame, while some want a much longer and deeper one.

3. There is no patent in the way of making any of the standard hives—Langstroth, American, Gallup, or Simplicity. With any of these, managed promptly and scientifically during a good honey flow, results will be satisfactory; but all the patented clap-traps in the world will fail to secure a honey yield, when the bees return to the hive without having found any.

4. No; a few may be lost in the snow, but when bees are needing a flight badly, and have commenced soiling the combs, it is frequently profitable economy to sacrifice a few to save the many.—Ed.]

It Beats All.—The last season seems to be the worst one yet in the bee line. The causes here seem to have been a short crop of honey, then winter coming so suddenly, before scarcely anyone was prepared either in feeding or packing, and lastly the long confinement. But according to all reports the best are in the same boat. I hope this year will turn up the sure method for wintering. A. G. Woodbury.

Winter Still Here.—My locality is, I think, as good for surplus honey as any part of Iowa. There is an abundance of linden timber all around here. I have saved some expressly for my bees. In November I put them on the south side of a tight board fence, about one foot apart. I packed straw all around except in front, filled the surplus boxes with dry oak leaves and then covered them with slough grass. I have 15 colonies left out of 25. In Warren county ⅔ of the bees are dead that were wintered out-of-doors; those in the cellars are there yet. We expected warm weather but this morning finds there are 10 inches of snow on the ground. I like the Weekly Journal and I would not like to do without it.

Hibert Clark.

Palmyra, Iowa, April 8, 1881.

Good-Bye March. — The month of March has come and gone and I earnestly hope we may never see another like it. It came in like a lion, continued like a lion, and went out like a whole cage of lions fighting and howling. It has been one continued cold blizzard all through with but 1 or 2 warm days in it. I say again, "hurrah for chaff packing on summer stands;" although winter set in early, continued severe and remained late, still I have not lost a colony and have only one weak, and that was wintered in an observatory hive and did well until March 15 when I found the glass sides were covered with ice and bees were being chilled as it melted. I therefore united them with another. If this month comes out warm I shall not lose any more. I find a large amount of brood and hatching bees in all my hives, some having 5 frames well filled. This is due, I think, to strong colonies and packing on summer stands with plenty of honey. Many bees in this locality were packed on their summer stands but were not put in proper condition; many were packed after winter set in and seemed to die first, late packing causing them to fill with honey, and having no fly, afterwards took the dysentery; several I have examined which died with good packing, bees and honey dry, and emitting a sweet odor; these I learned ceased breeding in September, but were strong in old bees. I have found none starved. The honey yield last fall gave them a chance to fill up well. All withstood the severe weather of winter and were in good strong condition March 1, but died during the month. If all had had one frame of brood Oct. 15, they would have had bees to rear brood in February, which would have saved them. I gave several of my colonies a frame of brood from other hives Oct. 15, which saved them, I think. I look eagerly each week for the Journal and follow its teachings.

E. A. Morgan.

Arcadia, Wis., March 31, 1881.

Every Plan of Wintering Fails.—A thaw the last week of March gave our bees a flight, and the bee-keeper a chance to look them over and see "what of life there yet remained." One-half of my colonies were then dead and of those left many were weak and by the time spring comes (if it ever does) there will not be over ⅓ left. It is cold and snowy yet, not a bud is swelling on anything; no farm work is done, and gloom rests over hill and valley. Most of the bees in this vicinity are dead. Three report a total loss; 2 have lost 4-5; another had 18 left out of 83. Myself and another have 2-5 living. I wintered on the summer stands without protection. Every method of packing was used by the apiarists referred to, while all used the same kind of hives, and those unprotected have done as well as those packed on the most approved plan.

Wm. Morris.

Anderson, Iowa, April 12, 1881.

Swarming.—I have no difficulty in wintering, and even in getting lots of honey; but the swarming propensity I cannot control satisfactorily. Please give information in the Journal.

E. Gloucester, Mass. A. Parsons.

[The swarming propensity can generally be checked by removing 3 or 4 frames of sealed brood to some weak colony, putting empty combs or foundation in their place, and destroying all queen cells. Sometimes it can only be controlled by transposing a weak colony in place of the strong one. Should they still persist, then divide, removing the queen and leaving a ripe cell.—Ed.]

The Survival of the Fittest.—In the early part of November I put away 31 colonies with blankets on the frames, packed prairie hay around the hives and filled the caps; they were protected by a tight board fence on the north and west—all south exposures; tops were protected from rain and snow; 24 others were in American hives and 7 in Langstroth. I am feeding the weak and giving them all the rye-meal they will take. We have had fearful weather—no natural pollen yet. I expect to transfer all my bees from the American to Langstroth hives during the season, if possible. Nearly all the bees in this vicinity are dead; I might say at least 4-5 of them, yet under the law of the "survival of the fittest" we may expect our race to improve at least in endurance. The different theories about loss of bees are amusing to a novice; what is one man's meat is another's poison—there seems to be "death in the pot" from all quarters. I give my results for all they are worth, without comment. Out of 31 I have lost so far 7: expect to lose about ⅕ or nearly so. I am glad to do so well, when I look around and find death written everywhere. I like the change in the paper as it brings us information which in the Monthly would be too late to be of value to us. F. A. Grove.

Kirksville, Mo., April 13, 1881.

Seven From One Colony. — I commenced last season with one colony. and as increase was my object I bought a lot of empty combs in Langstroth frames, fed sugar-syrup and stimulated breeding, and by dividing made 7 colonies from one. I wintered in chaff hives; after 68 days confinement they had a good flight, and are now all in good condition with brood in all stages. Of the bees in this county ⅔ are dead. Put me down for a life subscriber for the Bee Journal. J. F. Kight.

Poseyville, Ind., March 21, 1881.

District Conventions.—I was much pleased with Mr. Heddon's observations on conventions. He is right. What we want is talk and discussion, not long-winded essays and speeches. Let me suggest that the subjects be made up and published, and then let the members write out their experience on that question in a short, terse manner, remembering that Cæsar sent home the report of a whole campaign in 3 words. Let me give a sample—subject: Laying Worker.—I took from it all the combs without the bees, distributed them among strong colonies, replaced them with combs of brood and some bees from strong colonies, gave them a queen cell about to hatch, and in a few days all was lovely. Again: Dysentery.—Made several new swarms, noticed they had the dysentery; examined and found they had no honey; gave them some and all was right again. I wonder if St. Joseph county belongs to the southwest corner of Michigan.

E. B. Southwick.

Mendon, Mich., April 15, 1881.

Royal Jelly.—I see in the Bee Journal of March 29, page 89, that Mr. C. J. Robinson takes the position that royal jelly is composed of honey, bee-bread and drones' semen, and that the semen of the drone is annually deposited in the combs, and affords a supply for queen-rearing after the destruction of the drones in the fall until their return the next season; also, that the semen in the royal jelly is the agent that impregnates the embryo ovary of the queen while in a larval state, and vivifies myriads of egg germs so they will produce drones in the course of time. We are furnished with no method of ascertaining the truth of the assertion that a deposit of drone's semen is made in the combs. Can it be so, and how shall we find the truth? Now, I propose a test, by removing from a colony of bees all the combs of the previous season, and put the bees upon comb foundation and feed well, before any drones make their appearance. After the eggs hatch in the new combs, remove the queen and continue to feed honey and flour, and see what the result will be.

Camargo, Ill. A. Salisbury.

Ninety Per Cent. of Loss.—There has been a fearful loss of bees in this section. Some old bee-keepers have lost as high as 90 per cent. I had last fall 20 colonies in the Shuck hive packed with chaff, and 8 colonies in single-walled hives with chaff cushions over the frames—all were on the summer stands. I lost 6 in the Shuck hives, and 6 in the single-walled, leaving 16 to begin the season with. I think the prospects are good for a plentiful honey flow. I like the Weekly Journal very much, but prefer the size and shape of the Monthly. C. W. Hellems.

St. Catharines, Ont., April 11, 1881.

No Loss of Bees.—I am happily disappointed, for my bees have come through this long severe winter all right; they were confined in their hives from November until March, and I feared the result. I wintered on the summer stands in single-walled hives, packed with sorgum cane grindings, contracted the brood chamber on each side with division boards, placed cobs over the top boards of brood frames and then gunny sacks and old clothing. I have kept my bees mostly in the Dexter hive; it is like Root's simplicity, only more simple, and supplied with the American frame. I intend to transfer them into the "Fisk hive." This is a double-walled hive with dead air space between the walls, with a very slanting, self-cleaning, stationary bottom board; it is a 2-story hive. The inside wall is both lathed and plastered, and contains 8 Langstroth frames. I am married to this last named hive as you see the name indicates, for I believe it is the best hive that can be produced, both for summering and wintering. I would like to see more in the bee-papers about plaster hives, lime absorbents, etc., for I take more to the lime idea than to chaff or sawdust. Honey bees fared poorly in this section last year; there was no surplus nor swarms and many have died this winter and spring, especially among the careless and uninitiated bee-keepers. I like the Bee Journal very much, and so do those who subscribe here as far as I have heard from. A. W. Fisk.

Bushnell, Ill., April 18, 1881.

Why The Bees Die.—About 80 per cent. of the bees in this vicinity are dead. The apparent causes of the mortality are: First, the 5 months of close confinement; 2d, severe and long continued cold weather; 3d, improperly constructed entrances stopped up by sleet, snow, and dead bees, causing smothering. I lost 2 out of 45 colonies from the 2d cause. O. Foster.

Mt. Vernon. Iowa.

Long Winter.—Bees in central Iowa are suffering greatly from long confinement and losses will be very heavy, more so than most of us are aware. Bees have been dead as to sunshine since the 20th of October, almost 6 months, and no signs for a flight for some time yet, as we have 6 inches of snow on the ground now and very cold nights. We may safely say that ¾ the bees in this locality are dead. But I do not think I have lost very heavily yet. I never saw bees more quiet than mine are considering the length of time they have been up. But spring is a very bad time on bees here, we have so much cold wind in the spring; that of course results in spring dwindling and a great many bees are to go after farmers are satisfied that what bees they have left are all right. J. E. Hastings.

Carlisle, Iowa, April 14, 1881.

Palestine Bees More Hardy.—About 9-10 of the bees in northern Indiana are dead. I have lost 120 out of 170 colonies. I had in my apiary one queen imported from Palestine and about 50 young queens reared from her that have stood the winter well, although my Italian queens are nearly all dead. I think the Palestine bees will prove to be a very superior race in all respects.

Nappanee, Ind. I. R. Good.

Chips from Sweet Home.—Our advertisement in the American Bee Journal has brought us more inquiries for our Sweet Home Raspberries than all other papers we advertised in. I send you a sample of such honey as our bees have tried to winter on. It is honey dew, which I understand to mean the secretion of aphides which is neither honey nor dew. D. D. Palmer.

New Boston, Ill.

Upward Ventilation.—My bees were wintered in the cellar, and those that had honey enough (though of a very poor quality) are all right. I was busy in the fall and thought they were gathering enough honey to winter on, but when I came to carry them into their winter quarters I found, when too late, that they were light, and, the winter being extremely long, they starved to death. I do not think bees will ever die with the dysentery with plenty of good honey, a good, warm cellar, with plenty of upward ventilation; at least, that has been my experience for the last 15 years. My cellar is not a very dry one, but I never had the combs mold. I think that too little upward ventilation and poor honey have killed the bees. Nearly all the bees in this vicinity are dead. I have but 45 colonies left out of 80 last fall.

Marley, Ill. Frank Searles.

Loss 30 Per Cent.—Bees around here have suffered very severely; nearly all are dead. I have lost 30 per cent.

O. Clute.

Iowa City, Iowa, April 15, 1881.

SPECIAL NOTICES.

☞Single copies of the JOURNAL are sent postage paid for 5 cents each.

◆

☞The attention of bee-keepers is directed to the advertisement of Champion Bee Hive Manufacturing Co.

◆

☞Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

☞The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

◆

☞When changing a postoffice address, mention the *old* address as well as the new one.

◆

☞We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

◆

☞Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

◆

☞We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

◆

☞Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

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Gray Hairs Are Honorable but their premature appearance is annoying. Parker's Hair Balsam is popular for cleanliness and promptly restoring the youthful color.

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PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

◆

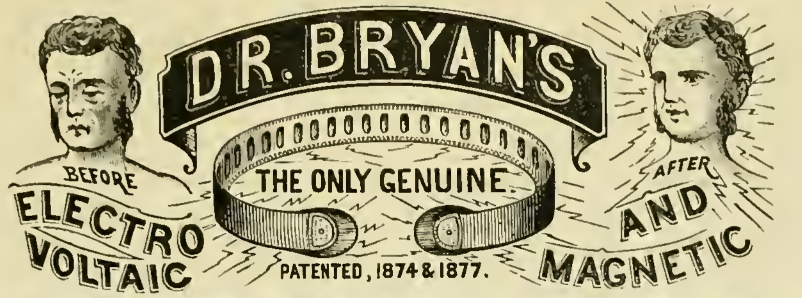
☞At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

◆

☞Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

☞It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.



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SAN FRANCISCO.

HONEY.—Shipments of 1,100 cases and 25 bbls. of honey went forward via Cape Horn to Liverpool this week. Reports concerning the coming crop are conflicting, the majority contending it will be rather light. With the present surplus now on hand, buyers apprehend no scarcity. We quote white comb, 12@13c.; dark to good, 8@11c. Extracted, choice to extra white, 6@7c.; dark and candied, 4@5c.

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San Francisco, Cal., April 9, 1881.

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Coleraine, Mass., April 11, 1881.
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1881. *Time and Place of Meeting.*

May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
10—N. W. Wisconsin, at LaCrosse, Wis.
L. H. Pammel, Sec.
10, 11—Eastern New York, at Schoharie, N. Y.
W. S. Ward, Sec., Fuller's Station, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
12, 13—Texas Bee-Keepers' Association, at McKinney, Collin Co., Texas.
W. R. Howard, Sec., Kingston, Hunt Co., Tex.
17—N. W. Ill. and S. W. Wis., at H. W. Lee's, Pecatonica, Ill. J. Stewart, Sec.
17—N. W. Union, at Hastings, Minn.
F. B. Dorothy, Sec.
19—Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 11, 12—Northern Michigan, at Maple Rapids.
12—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of tim and place of future meetings.—ED.

☞ The Texas Bee-Keepers' Association will hold their third annual Convention at Judge W. H. Andrews' apiary, in McKinney, Collin Co., Texas, on the 12th and 13th days of May, 1881.

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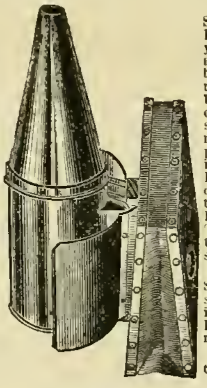

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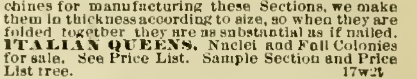

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ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., MAY 4, 1881. No. 18.

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Published every Wednesday, by

THOMAS G. NEWMAN,

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CORRESPONDENCE.

For the American Bee Journal.

The Real Cause of Dysentery.

JAMES HEDDON.

Mr. Doolittle says: "I believe confinement *does cause* the so-called dysentery. In this we differ. I claim that cold and confinement *do not* "cause" dysentery, but act as an aggravation to the cause. I claim that the only theory or hypothesis which has ever been advanced that will cover all the ground of facts regarding this disease, is the one of over-vegetable matter, or "Bacteria in the food"—one or the other.

While the statements of men we have never seen are not as convincing as logic, with which to prove their theories, these assertions are unexcelled material to *disprove* them. Now, I will prove by Mr. Doolittle's own statement in the article I am now answering (see first page of BEE JOURNAL for April 6, 1881) that he has formed wrong conclusions, from his own personal experience:

> "Again, in the fall of 1878 our bees were prepared for winter in the best possible shape, and had nothing but white honey in their hives, said honey being collected the early part of July, for we had no fall honey. Sixty colonies were put in the cellar, and 90 left on the summer stands, two-thirds of which were packed with chaff and straw. Winter set in early, and the weather was so cold that no bees could fly with safety for nearly 4½ months. At the end of 4 months some of our best colonies were dead, with the combs and hives soiled badly, while others sitting right alongside of them were in as fine condition as could be, and remained thus, coming out strong in the spring. If it was 'bacteria' in the honey, why did not all die, as all had the same stores?"

If it was confinement, "why did not all die," I ask?

I will answer Mr. Doolittle further by contradicting his statement, and say that bees *do not* all have the same honey, neither in taste, color nor consistency, and that, too, when the honey was gathered in the same apiary and at the same time. If "bacteria" was the cause, it would be only reasonable to suppose that some trees or nectaries would be infested with them, while others would not; that colonies gathering from that linden tree over east would get infected honey, while those gathering west, or perhaps a little further on, would get that free from infection.

Now, I do not say I ever saw this supposed parasite, or that I have searched the honey for an over-amount of vegetable matter, but I do say that these hypotheses are the only ones yet put forth that cover the whole ground of our experience. Again I quote:

> "We also placed 60 colonies from the same yard in the cellar on the 1st of November, and did not set them out till May 1st, and 55 of the 60 came out in good condition, while we only saved 15 out of the 90 out-doors—75 dying with the dysentery, so-called. If it was infection of the honey, why did not those in the cellar die also, and especially as they stood six month's confinement? The past winter has shown the same results, only our loss is but about 10 per cent. so far."

Allow me to ask Mr. Doolittle, if it was "confinement" (now remember, that is the cause he assigned, and which he hoped to *clearly show*), how did the bees in the cellar so ably bear 6 months of it? Was not the trouble in the food, and the cellar being a good one, the bees ate so much less of it that the "aggravation" of cold (which causes excessive feeding) was thus removed from their conditions. He is right about the large consumption of honey causing the disease; but I imagine the worse the honey is infected the more the bees will eat.

In the literal sense of the term, nature instinctively knows but one want—hunger, and bees, like the colicky babe, try to appease the unnatural distress by feeding upon that which caused it. Thus we see that this, like other ills, whether mental or physical, possesses the calamitous capability of perpetuating itself.

I know that dysentery can be produced at will in a very short time (especially with young bees) by combined gorging and frightening, for, with all animated nature, fright has a sudden and powerful effect upon the intestines. Perhaps the nuclei contained not the clearest of honey; perhaps they did not have the dysentery unto death.

I found some years ago that agitation was a great aggravation, but not entirely productive of dysentery. See *Gleanings* for January, 1875, page 17, wherein I said, "Place your colonies in their special repositories so quietly they will not know it." Soon after H. E. Bidwell said, "Bees moved into winter quarters seem to sleep with one eye open all winter, always on the watch for that disturbance again." Mr. Milliner, of Big Rapids, Mich., refuted this idea, because he stopped up his hives and wheeled them over planks some 20 rods, and then slid them down another plank into his cellar, and all (some 200 or 300 colonies) wintered well.

Thus we see that fright is not the cause, but another aggravation, probably in a double manner, both from gorging and the mental effect, as above referred to. If cold and confinement were the causes, then honey-producing would naturally move southward this spring. Northern Michigan bee-keepers would be buying and moving bees from Southern Indiana; but the reverse is more probable, as while Northern Michigan, with its purer air and less tendency to the production of *low* forms of animal and vegetable life, has wintered its bees to a considerable extent, Southern Indiana is the worst cleaned out community on record.

But Mr. Doolittle is a great matter-of-fact man. Maybe he would be pleased to have some facts from Michigan, and not all confined to one man's experience (my own), but that of many real, reliable persons (who do not sell supplies), and any of whom could be written to upon the subject: H. D. Burrell, Bangor, Mich.—Bees confined 120 days; all packed out-doors; loss 20 to 40 per cent. T. F. Bingham, Abronia, Mich.—All packed out-doors; loss 20 per cent., I believe. F. C. Easton, Hartford, Mich., a farmer.—Had 22 colonies with some straw and dirt poked up against three sides of the hives; *all* strong to date. Not much confinement in his yard, was there? Mr. D. D. Palmer, of New Boston, Ill., I learn has lost every bee of his 240 colonies. His bees must have been "confined" about six years, judging from results.

Eleven years ago, I had colonies die with dysentery in its worst form, in less than three weeks after being put into my cellar, which was a good one. The winter was not longer than others in which I wintered my bees nicely, but in 4 months only 3 colonies out of 48 were left. The past winter there must have been a large amount of "confinement" to the square inch, especially in Southern Indiana. One of the 40 colonies above referred to was brought from a farmer's, some 4 miles away. Notwithstanding they were drawn over a rough road, the first of winter, and put right into the same cellar, without any flight, that colony, and that one only, came out in splendid condition. They gathered their honey from the same kind of flora (clover, basswood and fall flowers), but in a different location, and their honey was pure. Thus the aggravation of this rough removal had no effect upon a cause that with them did not exist. White honey is no better than dark to winter upon. Such phenomena are of common occurrence, and I ask Mr. Doolittle if any of his theories will account for the result?

The trouble is each bee-keeper, as soon as his bees die, looks over his own experience only (being so intensely absorbed in his own losses exclusively), and forms a sudden conclusion as to the cause, and a sure preventive next year, while if he would study the causes of the losses of his neighbors and others within his knowledge, he would find out he knew but little about it, and in this way be of some use in the final settlement of the problem.

All know that the main cause of our winter losses is one; that the phenomena is alike in the main; that if this disease (by common consent called dysentery or cholera) could be warded off, we would easily get along with all minor winter losses, which are as a fire-fly is to the sun, compared with it. It is very easy for the novice telegraph operator to read a message by sound when its contents are previously known; how he can plainly hear each letter! How graphically the weather prophet can describe what he prophesied a few weeks ago about the *yesterday's* storm. It is to-morrow's weather that baffles him most, and that he predicts so vaguely about for fear of missing it.

We look into a hive silent in death, top-bars covered with black excrement, several inches of dead bees on the bottom board, and wisely say: "Oh! I see; things were not right here in the first place!"

Now, I am looking for the man who can come into my apiary each fall, not to fix it, but to "spot" the condemned colonies (through my ignorance of nature's laws condemned), so that I may mercifully and profitably chloroform the bees and save my honey, combs and hives clean, and the trouble of further attention, and a knowledge of where I will stand the next season. Verily, here knowledge is power to both of us, for I could well afford to pay the witch $25 or $50 per day and make a large margin besides. Looking at the subject in this light, through the telescope reversed, does it not look a little different?

As soon as time will permit, I will try to *separate* Mr. Doolittle's talk about "separators."

Dowagiac, Mich., April 20, 1881.

For the American Bee Journal.

More about Alsike Clover.

M. M. BALDRIDGE.

In the spring of 1874, a plat of prairie soil in my garden, about 40 feet square, was seeded to oats and Alsike clover. The crop of Alsike for each of the years 1875-76 was a fine one. This plat was planted with beans in 1877, owing, I think, to the Alsike having run out, or being a poor stand. The plat was plowed again in the spring of 1878, and left uncultivated. In the fall I found it nicely seeded to Alsike—the plowing having brought to the surface the seed that failed to germinate in 1876. Since the spring of 1878 the plat has not been disturbed by the plow. For the past two years the crop of Alsike has been good, and at this date (April 20) the stand is excellent, and chiefly from last season's self-seeding. The prospect for a large crop this season is as good as any preceding.

Alsike is said by botanists to be a perennial, but I do not rely upon that claim, but upon its re-seeding the land in July and August of each year when mowed for hay or seed. Close pasturing early in the season might, therefore, be an objection. Timothy will run Alsike out; so will timothy run out the common red clover in many localities—notably, Western New York, where I formerly lived. Red clover there, when mixed with timothy, will run out in two seasons; but no one ever thought of discarding it on that account. If Alsike will not do well for more than *one* season, it will then pay to raise it—as, when mixed with the common red or timothy, or both, it will not only improve the pasture or hay, but will produce enough honey to cover the expense, provided, of course, the soil and season be favorable for the secretion of honey in any other kind of clover. It should be borne in mind that white clover, as well as many other plants, fail to secrete honey occasionally. It should, therefore, surprise no one to find Alsike no exception to the rule. But I have yet to see the season in my neighborhood when Alsike fails to produce honey of the finest quality and an abundance of it.

St. Charles, Ill.

For the American Bee Journal.

Extracted Honey.

O. CLUTE.

Those veteran and successful bee-keepers, Charles and C. P. Dadant, of Hamilton, Ill., have done the bee-keeping fraternity a good service in publishing their experience with extracted honey. They have put it in a neat, well-printed pamphlet, entitled "*Extracted Honey: Harvesting, Handling, Marketing.*" In the first part they give a brief history of the use and the inferiority of *strained* honey, then of the invention of the honey extractor, and a statement of the genuine excellencies of *extracted* honey, and of the advantages to the bee-keeper in producing it.

Under the head of "Harvesting" they give us an inside view of their methods. Anyone intending to extract on a large scale will find much of value in this record of practical experience. Their *capping can*, so made that the frame of honey to be uncapped rests over the can and the cappings drop on a large sieve which allows the honey to drain into a receptacle below, is a most convenient aid in saving time. A little device, for freeing the room in which the extracting is done from bees, is very ingenious. Anyone who has been annoyed in extracting by the bees, or who have been made sad by seeing so many of the little fellows beat themselves to death against the windows or the wire netting, will be glad to read this plan, and to adopt it. Though they prefer not to extract from brood combs they say it can be done without injury to the brood. This coincides with my own experience. By extracting with care the brood is not injured, and the cells being emptied of honey the queen lays in them, and you get solid frames of brood.

They store their extracted honey in barrels, using oak barrels that have contained alcohol or whisky. A most valuable part of this pamphlet is devoted to marketing. They tell us their experience for several years, which finally led them to adopt tin pails as the best package for retailing extracted honey. They use pails of different sizes, containing 10, 5, 2½, and 1¼ lbs. each. The smallest sells the best, which is only a further illustration of the fact that large numbers will buy an article that sells for a small sum, even if the sum thus paid is large in proportion to the quantity of the article obtained. In using tin pails for the extracted honey several advantages are gained. They are easily handled, they do not break, there is no leakage, when nicely labeled they look well, and they are cheap. Undoubtedly tin pails are the best package for retailing this product, which is destined in the future to occupy an important place in the consumption of nearly every family.

It seems to me that comb honey has intrinsic merits which will always keep it in large demand. The wise and enterprising producer of comb honey will always have a fair market. But there is no doubt but extracted honey has great merits—merits which now are unknown or unappreciated by very large numbers. When these merits become widely known the sale of extracted honey will be very large.

The Dadants have faith in extracted honey. They show their faith by producing it in large quantities, and selling it to advantage. They close their valuable pamphlet with some remarks which I will quote: "To sum up: Comb honey is a fancy article, for which only fancy prices can be obtained, and these prices will always be changeable, whilst extracted honey must become a staple article sooner or later. Comb honey is difficult to transport, and to export. Extracted honey is therefore the coming honey. California will soon see before her an inter-oceanic canal which will give her full scope on the European Continent. As for us bee-keepers of the Eastern and Middle States, let us improve our home market, and let us learn to produce good, cheap honey. In the meantime let us hope that Congress will put an end to all food adulterations by enforced legislation. Let us hope, also, that Congress will understand the propriety of placing the public services in the hands of the people, and will organize the railroads with the regularity, the honesty, and the careful, cheap, and prompt management which are so prominent in the Post Office Department. Then the honey resources of America will astonish the Old Word, and will invade it."

Iowa City, Iowa.

For the American Bee Journal.

Foul Brood.

DR. I. P. WILSON.

The JOURNAL for April 20, page 124, contains an editorial on "Foul Brood," and especial reference is there made to my indorsement of Mr. Jeffrey's views on that subject.

You are right, Mr. Editor, when you say that "facts and experiences are what we want," but it is quite evident that two men may have precisely the same experience, and yet draw very different conclusions. One may be a close observer—an independent thinker, and from him we may expect inroads made upon popular theories and beliefs, and although he may be laughed at, at first, in time he will be honored as a progressive man. Another man will "swallow" the opinions of others—follow in their wake, and go through life perfectly satisfied in believing anything that is generally believed by others.

I felt like patting Mr. Jeffrey on the shoulder, because I believed him to be thinking for himself, and thinking, too, in the right direction on this subject of "Foul Brood."

I acknowledge, Mr. Editor, that the few lines I wrote for the JOURNAL simply agreeing, fully, with Mr. Jeffrey's article, without giving my own experience, was rather an easy way of expressing my views on that subject. In fact, my professional duties require all my time during the day, except an hour or two spent in my apiary in the early morning, and with a considerable amount of work to do with my pen at odd moments, I find it next to impossible to devote much time in writing for the JOURNAL.

But now for my experience with foul brood. But perhaps what I have hitherto called foul brood is not the devastating disease described by some writers. What I have witnessed has not appeared to me as the result of disease, but as the death of the brood from insufficient animal heat. I have had nothing of the kind in my apiary for a number of years, but have a very vivid recollection of an experience of 7 or 8 years ago. Several of my colonies left their hives in disgust, and on examination I found the brood dead and putrid, the stench being so great that it was noticeable at some distance from the hive. The comb seemed to be completely infiltrated with the stench, and the hive throughout tainted from the noxious odor. At that time I had read nothing on the subject of foul brood, and in seeking for a cause I became convinced that the brood had perished from becoming chilled, and putrefaction naturally followed. Having satisfied myself of the cause, I have ever since kept a lookout for dead brood, and when I have found any, have either destroyed the comb, or, with a pair of little pliers, removed one by one of the dead brood until the comb was free from them. This, of course, must be done before the comb becomes contaminated from the putrefaction of the brood.

I cannot help thinking that a difficult solution of this question is sought by those who attribute all to fungoid growths—that spores so small the microscopist can scarcely detect them are the agents of death, and that the fungi must be killed or the whole apiary will be lost. If one colony in an apiary has foul brood, the cause that produces it is common to all, but more especially to the weaker colonies, so the disease (?) being general throughout the apiary does not argue in favor of the commonly accepted theory.

Should there come a cold spell during the next week or two I shall expect foul brood to make its appearance in our apiaries in this section of the country, and for this reason: Warm weather set in quite suddenly here about April 15. My bees have been as busy as they could be the past week carrying in pollen and honey. The honey is stolen from the colonies that died during the winter, and still remain on their summer stands. The bees are spread out over the combs and the queens are actively engaged in laying. A cold snap would drive them closer together, and the unduly enlarged brood nest will not be sufficiently covered with bees to be kept warm, and dead brood will be the result. But it is to be hoped that this sudden change in the weather will not come. There are bee-keepers that will take a frame partly filled with dead brood, and put it in the centre of a strong colony for them to "clean up," which is an unreasonable task to impose upon your little pets. To do this is simply creating a nuisance in the hive, and spreading foul brood more extensively through your apiary. Better spend a little time in picking out the dead brood, and if the comb has not been vitiated, it may be utilized to advantage.

Foul brood may be produced in another way. Separate the brood nest, when it is already as large as the bees can cover, by carrying the outside frames to the centre of the hive, thereby inviting the queen to enlarge her brood beyond the capacity of the bees to keep warm.

After writing the above it is not necessary for me to say that I do not believe it to be a disease any more than freezing or drowning is a disease.

There are other phases of this subject that I should like to refer to but my time nor your space will admit of my doing so.

Burlington, Iowa, April 27, 1881.

For the American Bee Journal.

The Cause of Dysentery, Etc.

WM. R. HOWARD.

I have just visited some of the principal bee-keepers in this vicinity; their losses have not been heavy compared with our northern friends. Though we had a rough winter our bees were not confined long enough to cause dysentery. Bees are wintered on the summer stands without packing; some had a few boards leaned against the north side of the hive as wind-breaks. At one time my bees showed signs of dysentery, but a cleansing flight saved them.

I cannot agree with Dr. E. B. Southwick regarding the cause of dysentery, viz: starvation. In the Doctor's first cases the confinement was the cause, as you suggest. I have moved bees a few miles 2 or 3 times within 2 or 3 years, during rainy weather, and if they could have a good cleansing flight they suffered no inconvenience, but if not, they suffer more or less from dysentery. In one case, 2 years ago, I moved 2 colonies; a rain came on before I got home with them, a "norther" came up, and it was 3 days before they were able to get out, and when they came out they were diseased and I lost them; they had plenty of honey and brood. I bought a colony from a neighbor and moved it home; the weather was fine but there was not much honey to gather, and not being well provided with a suitable room in which to transfer them, I transferred them in the shop one morning while it was raining, to avoid being troubled with robbers. The rain continued 3 days, so that they were housed all this time; they had plenty of honey; I lost nearly ½ with dysentery. This was last spring. I also lost 2 colonies at the same time that had not been disturbed in the least, and they were in good condition, with plenty of honey and brood. Those that showed the most signs of dysentery this past winter were the strongest colonies I had. The reason assigned was, that being strong, they kept up a sufficient heat to make them lively, and they stood by the walk where they were frequently disturbed by the constant passing. There are certain conditions in which bees will become diseased in a very short time if confined to the hive.

As will be seen from the above, when confined by wet weather, during the height of brood rearing in the spring, bees are apt to become diseased. Those "stupid bees," are never able to crawl much, to discharge their feces over the frames. Bees that die of starvation, from being away from the stores are generally found full length in the cells; if they were able to crawl much they would certainly be able to reach the cluster and stores. I have not noticed that all bees that die of starvation have the "abdomen always full of dysentery feces."

Bees that die of dysentery have their abdomen distended with a watery fecal matter, while, on the other hand, bees that die of starvation, the abdomen seems to be about the normal size. Again, bees that die of dysentery are not usually found in the cluster, and stuck fast in the cells, a condition which is nearly always noticed when they have died of starvation.

Mr. L. W. Wren, on page 117 of the AMERICAN BEE JOURNAL, asks if his bees will go 1¼ miles to a grove of linden, and as that question was not answered, I would say, that grove is within easy range of his bees.

Our bees have been set back by the late freezes we have had—3 killing freezes in this month. Our fruit is nearly all killed; in some localities the trees will die Our forest trees had leaves nearly grown when the last and coldest snap came; the oaks, hickorys and pecans look like the fall of the year. The timber looks dark inside. Corn was, in many places, frozen root and branch, and has been planted over. Gardens suffered severely, graperies will not blossom much this season, and our ratan vine is dead; it was nearly ready to bloom, and is one of our best honey plants. Haw and honey locust are in bloom now and bees are commencing to work again.

Kingston, Tex., April 25, 1881.

For the American Bee Journal.

Double-Boarded Hives.

HENRY ALLEY.

I have used double-walled hives more or less since I began bee-keeping, and know from experience that bees will winter better in them than they will in single-boarded ones. As I formerly made these hives, I found them expensive, heavy, and requiring too much work to build. During the past winter I made considerable improvement in their construction, reducing the quantity of lumber and labor. As now made they are a very plain and simple Langstroth hive. They require the least work to put them up, and are the most convenient hive in use. There is no useless clap-trap work about them. All the lumber is ⅞ thick but 4 pieces. The brood chamber, bottom board and outer cases are all independent of each other. They will be found a cool hive in summer, as there is an air-space of nearly an inch between the brood-box and outer case. In winter this can be filled with chaff, or left vacant, just as one desires. The bottom section of the outer case is 1½ inches above the top of the brood-box. This is left so that the chaff cushion will tuck down in the air space, and out of the way of the cap, and prevent upward ventilation. I use a rack holding 21 two-pound sections on these hives, and wooden separators instead of tin. By making the top section of the outer case 12 inches deeper, double the number of boxes can be used at one time, or what perhaps would be better, make an extra section to use in case two sets of caps are needed.

I will describe in as few words as possible the way these hives are made: The bottom board is 17⅝ inches wide by 24 long; the grain of the wood running the shortest way. I do not match them, as the joints are always tight, they come so near the ground. Clamps for the bottom board ⅞ of an inch square, by 22⅛ long. These are nailed on from the edge 15-16 of an inch. The brood-box sits inside the clamps, and the outer case outside of them.

Brood-box: Sides 10 inches wide, 19⅞ in. long, ⅜ in. thick; front end 9 in. wide, 14⅛ long; back end 9½ in. wide by 14½ long, both pieces ⅞ thick. Nail the sides to the ends, and let them project above the ends at the top ½ inch. This makes the rabbet for the frames to rest on. Cover the rabbet with a piece ⅜ thick, 2 in. wide, and 15⅛ in. long. Outer case; 9 pieces in all. Sides: bottom section 11½x24 in.; ends 11½ and 16⅞ in. Cut entrance in one end 14x½ in.; with a circular saw take out of top edge a strip 7-16 on and ¼ in. down, and the same on the bottom edge of the cap, on the inside edge. This is so the two sections will match together, and keep out the water and cold winds. Top section: sides 7x24 in., ends 7x16⅞. If pitched roof is wanted, saw ends 2 in. wider, and taper from the center to the ends to the same width of the sides of the cover. Top boards 10½x26 in. Strip to cover joint 2x26 in. Those who have never made a Langstroth hive may have to puzzle over this some, while an old hand will readily understand it.

This hive is so plain and simple in construction, as well as very handy and convenient in every way, that it will commend itself to all. It embodies all the main features of the standard Langstroth hive. As double-walled hives are coming into general use, this description may be of some benefit to many of the readers of the BEE JOURNAL.

Wenham, Mass.

For the American Bee Journal.

Purely-Mated Queens this Year.

J. BOLES.

Inside of a radius of 8 miles I know of several who went into winter quarters with from 50 to 70 colonies, and all are now dead. I do not know of a bee left alive inside of the above distance except my own, and they have suffered badly. I put into winter quarters 9 colonies, in good order, in double-wall hives, with a space of 3 inches all around, the bottom filled with dry pine sawdust, and sawdust cushions on top, and even I have only 2 left. I examined them to-day, and found them in good order, with brood in all stages. The bees were carrying in pollen very fast; where they get it I cannot make out. Can you tell me? In fact they appear as busy to-day almost as at any time last summer. Among the lamented dead are colonies having 3 choice Italian queens and 1 Cyprian queen, all from the apiary of D. A. Jones. The only ones left alive are some of my own rearing. Nearly all bee-keepers in this part have been using the old box hive and black bees—but these are things of the past. No trouble to have purely-mated queens this year; this is one consolation at least. I cannot afford to have my bee-fixtures lying around and having only 2 colonies of bees to attend to. I must look around me and try and buy 5 or 6 good colonies, so that when I get the blues in my office, I can have something to take up my leisure time. I have a few questions to ask, which you will kindly answer, if not imposing too much on your space. 1. Have you any knowledge of any hives having been made round, in the shape of a barrel, and so arranged as to lie on their side? 2. If so, please give dimensions of hive, and how made? 3. Had it movable frames; if so, were they made circular like a barrel hoop, and of what material made, and how arranged in the hive? 4. Was entrance in the side or end? Allow me to thank you for the picture of yourself which you gave us some time ago. I must say you are rather a handsome-looking man to be a bee-keeper; also, to congratulate you on the success of the Weekly BEE JOURNAL. Of all the papers coming into my office, none are as welcome as the Weekly BEE JOURNAL.

Ridgeway, Ont., April 20, 1881.

[It requires more knowledge of your surroundings than we possess, to inform you where your bees are getting pollen. In Syria and other countries in the East, bees are kept in clay cylinders, one end of which is entirely closed, and the other partially. No frames are used in these. We have no knowledge of a barrel-shaped frame hive; if made, it was not successful enough to be worthy a place in history or perpetuation in use.—ED.]

For the American Bee Journal.

Wintered Very Successfully.

H. R. BOARDMAN.

I never had better success than the past long, cold winter, that has been reported so universally disastrous to bees. I cannot see what the long cold winter has to do with success as long as the bees are in proper condition and kept so inside a warm house. On April 15 I put out 140 colonies that had not seen the sunlight since Nov. 15. They seemed quite astonished by the warm sunshine of an April day. Their Rip Van Winkle sleep had carried them over a long experience of 5 months of cold and storm in the outside world. Four rather weak colonies only had pushed by, getting away from their stores and starving. I am satisfied that I could have kept them in a month longer in good condition, but did not deem it wisdom to do so as brood rearing had nearly ceased for lack of pollen and water. I fed flour liberally for a few days, when natural pollen appeared. They are doing nicely, filling up with brood and young bees. I wintered 70 colonies at another place in another bee house, but could not obtain the condition I considered necessary for certain success. These did not winter quite so well, the loss being 6 light colonies mostly, although from the same cause before mentioned. The bees, too, were not all in that fine bright condition of the others. These were set out at 4½ months. They are also doing well now. No cushions, no chaff packing, no feeding—housed in a bee-house constructed for the purpose in view of success; temperature average about 40°; artificial heat at times; the bees gorged themselves all the fall on apples, peaches and grapes; about ½ of the colonies were light in stores when put up; I wintered in the same place during the warm winter of one year ago with equal success. I am entirely unshaken by the numerous reports of the fearful disaster in wintering. I am quite certain that with proper management bees may be wintered with as much certainty as any stock, at all times.

East Townsend, O., April 29, 1881.

[We take pleasure in congratulating Mr. Boardman on his success. We have heard of several who had good success in house-wintering.—ED.]

For the American Bee Journal.

Packing Bees for Winter.

B. M. LINGLE.

Quite late last fall I put 31 colonies into winter quarters—10 being weak nuclei. I fed 125 lbs. coffee A sugar. Just before cold weather sets in is the time to do the packing. I use dry goods boxes about 6 inches larger than the hives; take the top and bottom off and set the box over the hive; cut a notch in the box to correspond with the entrance of the hive; place three blocks from front of hive to box, and pack all around with chaff; after this is done, take the top off the hive and replace it with a blanket, then fill with chaff. This will leave the chaff 6 inches deep over and around the hive. After this is all done, put the top on the box to keep all dry. I have been packing in this way for several years, and have wintered successfully. After unpacking, I find my bees in fair condition; 2 nuclei, covering but 3 combs, froze; 2 starved, and 1 was queenless. I united this one with a weak colony, which leaves me 26 colonies in fair condition. I think the chaff packing is the successful way to winter bees in this latitude. Success to the AMERICAN BEE JOURNAL.

Paoli, Ind., April 25, 1881.

CONVENTION NOTES

Local Convention Directory.

1881. *Time and Place of Meeting.*

May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.
J. A. Bucklew, Sec., Clarks, O.
5—Central Michigan, at Lansing, Mich.
10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
10—N. W. Wisconsin, at LaCrosse, Wis.
L. H. Pammel, Sec.
10, 11—Eastern New York, at Schoharie, N. Y.
W. S. Ward. Sec., Fuller's Station, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
12, 13—Texas Bee-Keepers' Association, at McKinney, Collin Co., Texas.
W. R. Howard, Sec., Kingston, Hunt Co., Tex.
17—N. W. Ill. and S. W. Wis., at H. W. Lee's, Pecatonica, Ill. J. Stewart, Sec.
17—N. W. Union, at Hastings, Minn.
F. B. Dorothy, Sec.
19—Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct, 11, 12—Northern Michigan, at Maple Rapids.
12—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Texas.—I have received and accepted the resignation of Vice-President F. F. Collins, and at his suggestion have appointed Judge W. H. Andrews, of McKinney, Texas, to fill the vacancy in the office of Vice-President for Texas of the North American Bee-Keepers' Society. N. P. ALLEN, *Pres.*

☞ The bee-keepers of Missouri will meet in Convention at Mexico, Mo., on June 2, 1881, at 10 a. m., and hold a session two days. Dr. N. P. Allen, of Smith's Grove, Ky., President of the North American Bee-Keepers' Association, is expected to be present to assist in organizing a Bee-Keepers' Association; other leading bee-men are expected, due notice of which will be given. The programme will be published in a short time and will embrace such questions as will be of interest both to the novice and practical apiarist. All are invited to partake of and assist in this much needed organization. Those that cannot come will confer a favor by giving us a communication on some subject of interest to bee-men. P. P. COLLIER, *Vice Pres.*
N. A. B. K. Association, for Mo.
All papers of Missouri please copy.

☞ The Washtenaw County and Southeastern Michigan Bee-Keepers' Association will meet at the Court House, in Ann Arbor, Thursday, May 12, 1881. N. A. PRUDDEN, *Pres.*

☞ The next meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held at H. W. Lee's, 2 miles n.w. of Pecatonica, Winnebago county, Ills., on the 17th of May, 1881. J. STEWART, *Sec.*

☞ The Eastern New York Bee-Keepers' Association will hold a Convention in the Court House at Schoharie, N. Y., May 10 and 11. All interested in bee-keeping are cordially invited to attend. W. S. WARD, *Sec.*,
Fuller's Station, N. Y.

☞ The Texas Bee-Keepers' Association will hold their third annual Convention at Judge W. H. Andrews' apiary, in McKinney, Collin Co., Texas, on the 12th and 13th days of May, 1881.
WM. R. HOWARD, *Sec.*,
Kingston, Hunt Co., Texas.

☞ The North Western Wisconsin Bee-keepers Association will meet at Germania Hall, LaCrosse, Wis., on Tuesday, May 10, at 10 a. m. All interested in bee-keeping are requested to be present. L. H. PAMMEL, JR., *Sec*

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., October 11 and 12, 1881. DAVID EISHELMAN. *Pres.*
O. R. GOODNO, *Sec.*, Carson City, Mich.

☞ The Michigan Bee-Keepers' Association will convene in Pioneer Rooms of the State Capitol at Lansing, May 5. The following is the programme:

Regular order of business.
Annual address by Pres. W. J. Ashworth.
Address by T. G. Newman, editor of American Bee Journal; subject, Rise, Progress, Present Condition and Future Prospects of American Apiculture.
Essay—Profitable extent of bee-keeping, by James Heddon, Dowagiac.
Essay—Requisites of an Apiary, by H. A. Burch, South Haven.
Essay—Some important facts in bee-keeping, by Prof. A. J. Cook, Michigan Agricultural College.
Discussions and remarks.
Examination of exhibits.
All exhibitors of supplies are requested to send samples to the Secretary, with prices and descriptions attached, and all transportation charges must be prepaid by the exhibitors. GEO. L. PERRY, *Sec.*

☞ The Southwestern Wisconsin Bee-Keepers' Association will meet at the residence of W. B. Wallis, at Darlington, Wis., on Wednesday, May 11, 1881, at 10 a.m.

There will be an opportunity given for questions and answers. Interesting papers will be read, among which may be mentioned:
Location of Apiary, by E. France.
Implements of the Apiary, by R. D. Wilson.
Feeding Extracted Honey to Produce Comb Honey, by Dr. C. Abraham.
Foundation, and its Advantages, by D. R. Sylvester.
Bee Forage, by H. Gilmore.
Preparation for Winter, by George Fox.
Wintering Bees, by Reese Powell.
Advantage in Preparing Papers, by E. France.
Profitable Bee-Keeping, by E. Pike.
Bee-Keeping, will it Pay? by N. E. France.
The Prize Essay of the N. E. Convention, on How to make the Apiary the most Profitable, by George W. House, of Fayetteville, N. Y.
A cordial invitation is given to all.
N. E. FRANCE, Sec., Platteville, Wis.

☞ Programme of the Northwestern Bee-Keepers' Union, to be held at Hastings, Minn., May 17, 1881:

1.—Address of Welcome, by J. N. Searls.
2.—Reports of committees.
3.—Reports from all—number, kind and condition of bees.
4.—A paper by Pres. A. Tidball, on honey-producing plants and flowers.
5.—A paper by Dr. P. Barton, of St. Paul, on honey as food and medicine.
6.—Apiary culture and our fairs, by Hon. William Avery, of St. Croix Falls, Wis.
7.—A paper on sales of honey, by F. B. Dorothy, of Taylor's Falls, Minn.
8.—A paper on wintering bees, by L. Day, of Farmington.
9.—Progressive bee-culture, by J. G. Teter.

The above subjects will be open for discussion. In addition to the above, the following subjects are suggested:
1.—Essential properties of a good bee hive.
2.—How to prevent and cure foul brood.
3.—How to prevent spring dwindling.
4.—Comb Foundation, with dividing and natural swarming.
Appointment of committees.
Election of officers. Adjournment.
☞ All bee-keepers are cordially invited. Entertainment free. F. B. DOROTHY *Sec.*,

☞ The Annual Meeting of the Society for the promotion of Agricultural Science will be at Cincinnati, on Tuesday, Aug. 16, 1881, the day preceding the sessions of the American Association for the advancement of science.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 15@18c. for strictly choice white comb in 1 and 2 lb. boxes; at 10@12c. for common dark-colored and broken lots. Extracted, 7½@9½c.

BEESWAX.—Choice yellow, 20@23c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 14@17c.; dark 11@12; large boxes 2c. less.—White extracted, 9@10c.; dark, 7@8c.

BEESWAX.—Prime quality, 20@25c.

CINCINNATI.

HONEY.—The market for extracted clover honey is good, at 8@10c. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY.—Since the 1st inst. there have been exported 1,303 cases and 25 bbls. to Liverpool, and 50 cases to Sydney. Receipts in same time have been 590 cases 103 bbls. and 18 kegs. Prices remain the same, with a good supply of extracted still on hand. We quote white comb, 12@14c.; dark to good, 9@11c. Extracted, choice to extra white, 6@7c.; dark and candied, 5@5½c.

BEESWAX—22@24c., as to color.
STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., April 16, 1881.

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A. I. Root)	3 00	2 75
Bee-Keepers' Magazine (A. J. King)	3 00	2 60
Bee-Keepers' Exchange (J. H. Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W. Thomas)	2 50	2 35
Bee-Keepers' Guide (A. G. Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T. G. Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., MAY 4, 1881.

Using Combs in which Brood has Died.

Please tell us whether decaying brood found in the combs of those colonies that recently perished, has any tendency to create foul brood or anything similar in its nature, if left to take its own course until used next summer? A few days ago we were cleaning hives and combs from colonies that had lately died, and among the general contents of such hives we found more or less dead brood in different stages of putrefaction. On examination, we noticed in some of these cells a brownish substance, in appearance some like that found in foul brood (we imagined), but without scent. It seemed like a waste to cut out of the center of almost perfect combs pieces as large as one's hand, or larger, for the sake of disposing of a few such scattered cells as mentioned, providing there is no danger or risk in leaving them in.

GREINER BROS.

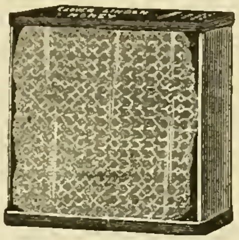
Naples, N. Y., April 18, 1881.

It is not foul brood. The brood was deserted by the bees for some cause, and died; perhaps had been spread, or were not bees enough to properly care for and keep it warm—or for some other cause. We would not, however, leave it in the hive, nor cut or mutilate it; but uncap those cells in which brood has died, then put them away in some dry place till the dead brood has dried and shrunken. When wanted for use, put them one or two at a time in the stronger colonies, where they will be speedily and thoroughly prepared for use. In order to make them desirable for brood combs, it is necessary that the cells be ready for the queen's occupancy as soon as she reaches the comb, or she will either pass over the comb entirely or deposit her eggs here and there wherever she finds unobjectionable spots. Every close observer has noticed that the queen invariably makes a close inspection of the cell she proposes using, and unless perfectly clean she will not deposit an egg in it. With a cell here and there occupied with dead larva, it is easy to imagine how the living larva adjoining may be more or less liable to become chilled, as inanimate bodies are not possessed of the natural heat which pertains to those living. It is undoubtedly this natural law which instinctively impels a "good" queen to deposit her eggs compactly in an oval space in the comb, thus economizing to the greatest extent the heat of each individual larva to help keep its neighbor warm. To what extent the presence of dead brood in the combs (which has died from natural causes) may have caused the death of contiguous brood we cannot say, but certainly it has contributed largely to many of the theories regarding "foul brood" and its tendencies, and perhaps in rare instances has had a tendency to enfeeble many of those bees which survived to maturity.

It may not be out of place, in this connection, to advise that the stronger colonies be selected to do all the drudge work of the apiary, such as cleansing befouled combs, removing mold from combs, and pulling out such dead bees from the cells as will not shake out when dried and shrunken. If your strong colonies have their hives already filled with frames of brood, then remove sufficient to accomplish the purpose; but where a colony is already feeble, and it is desirable to build it up rapidly, no disagreeable work should be imposed upon the bees to perform, for it will tax their energies sufficiently to provide pollen, water, and do the feeding and nursing necessary for successful brood-rearing. A strong colony will accomplish in a few hours that which would embarrass a weak colony for nearly a whole season.

◆

Perfection Honey Box.—Mr. J. E. Moore, of Byron, N. Y., sent us a nice box of honey enclosed in his Perfection Caps, of which the following is a correct representation:



All will see that it makes a neat package, very attractive and enticing, and free from leakage, when glass is used. These caps are a rapid and beautiful method of glassing.

◆

☞ This issue of the BEE JOURNAL, the first in the month, goes to all the subscribers of the Weekly, Monthly and Semi-Monthly. Should any of the latter wish to change to the Weekly, they can do so at any time, by paying the difference.

◆

☞ N. Langers, Belgium, Wis., has wintered without loss 70 colonies, in a bee house, constructed with double walls filled, like ice-houses, having an underground tunnel 50 feet long, for ventilation; it is also provided with up ward ventilation.

◆

☞ Dr. N. P. Allen, Smith's Grove, Ky., President of the National Society, desires the Bee Associations and Vice-Presidents for the different States, to send him statistical information concerning bees and honey in time for use at the National Convention at Lexington next fall.

◆

☞ We have received the following *late* Catalogues of apiarian supplies:

A. B. Weed, Detroit, Mich.—4 pages—Bees and supplies.

H. H. Brown, Light Street, Pa.—12 pages—Bees and apiarian supplies.

Wm. Ballentine & Son, Sago, O.—1 page—Queens and bees.

J. T. Scott & Bro., Crawfish Springs, Ga.—Italian bees, queens, hives, etc.

◆

☞ Rev. A. Salisbury, Camargo, Ill., desires to have the following correction made:

I see you have accredited the article I wrote for and which was read at the North Eastern Convention, to L. M. Wainwright, Noblesville, Ind. Of course it was through mistake and not intentional. Nevertheless, I regret having been the cause of laying so much imperfection to the charge of another.

The essay was printed just as it came from the Secretary. The BEE JOURNAL is in no way responsible for the credit.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Bee-Culture in Kansas.—The Quarterly Report of the Kansas State Board of Agriculture, for the quarter ending March 31, 1881, is received, and under the heading, "Condition of Bees," we find the following item:

Correspondents from only about half the counties in the State report at all on bees, in their quarterly reports. Reports from 15 counties are very favorable, the bees having come out of winter quarters well, and seem to be in a fair condition: Chautauqua, Cherokee, Elk, Franklin, Harvey, Jackson, Labette, Lincoln, Montgomery, Nemaha, Rawlins, Riley, Saline, Sedgwick and Shawnee. In the following counties they are reported to have done poorly, in many cases from 25 to 50 per cent. having died from the long cold winter and neglect: Allen, Anderson, Atchison, Bourbon, Brown, Butler, Cloud, Cowley, Crawford, Doniphan, Greenwood, Jewell, Johnson, Leavenworth, Linn, Lyon, Marshall, Miami, Mitchell, Phillips, Pottawatomie, Republic, Wabaunsee, Washington, Wilson, Woodson, and Wyandotte. Those who have made a success in this industry speak encouragingly, and say that it is a want of attention that produced a failure.

Bees Without Stings.—The *Bienen-Zuechter*, the organ of the "Societe D'Apiculteur d'Alsace-Loraine," remarks as follows concerning the stingless bees of South America, and their introduction into the United States:

"The discovery has been made in South America of yellow bees, without stings, and some bee-keepers of the United States have taken the preliminary steps to import this bee into that country. We have informed our readers that Mr. Benton, a bee-keeper of the United States, went to the Island of Cyprus and from there to the Island of Java, to study the *Apis Dorsata*, and would try to import some specimens of these into America. It is said that this bee is much larger than our handsomest queens. Let us hope that Mr. Newman, after what he said in the Convention at Cincinnati about the improvement in the race of bees, will be able to cross this bee with the one without sting, then we will have the *bee of the future*—a very precious bee, which nobody will fear, and having a longer tongue and larger body, will be able to feed on our immense red clover fields, the nectar of which is not very accessible to the ordinary bees."

Glucose.—In the *London Journal of Horticulture*, Mr. Frank Cheshire, while commenting upon the discussions on adulteration in the AMERICAN BEE JOURNAL, says:

Adulteration with glucose is a base fraud which all good men must reprobate....Its use as an adulterant is most disgraceful, and all should join hands in fearlessly doing our level best to get the right ticket put upon any man (and his wares) who descends to a practice which, if it does not lower him, wrongs all those who are striving to do honestly. Glucose, although chemically like a portion of honey, is altogether wanting in that which makes honey what it is. Its aroma, the delicate distillment from a thousand flowers inimitable and incommunicable alike, is not there, and he who gives the one for the other is as truly criminal as he who tenders knowingly a base coin.

◆

☞ The man who will purchase a number of colonies of bees, set them up in some out-of-the-way place, and give the matter no further attention, should keep out of the business altogether.—*Grange Bulletin.*

Honey Dew.—The *Patrons' Guide* gives the following on this subject:

"Honey dew" is a name commonly applied to a sticky substance often seen, during hot, dry weather in the summer, on the leaves of hickory and other forest trees. It is not, as many suppose, a natural deposit from the atmosphere, given for the especial benefit of bees, but is exuded from the leaves direct. Hence "honey dew" may be correctly termed a partially dried-up sap. Liebig, in his excellent work, "Agricultural Chemistry," says: "Certain diseases of trees, for example that called 'honey dew,' evidently depend on the want of the due proportion between the quantity of the azotized and that of the unazotized substances which are applied to them as nutriment."

The Manufacture of Glucose.—Mr. Wm. Lynch, Maysville, Ky., has sent us the following from the Cincinnati *Star Times*:

A recent lawsuit tried before Judge Haight, of the Supreme Court of New York, has revealed to the public the extent of a new manufacture of general interest. The production of glucose, or "grape sugar," from corn is of very recent date but of great proportions. It is estimated that from 12,000,000 to 16,000,000 bushels of corn were consumed the past year in the manufacture of this comparatively new article of commerce; several establishments consuming from 4,000 to 5,000 bushels each per day. The first use this so-called grape sugar was put to was in the adulteration of ale, beer, porter and liquors. The consumption was necessarily limited in this direction, but when it was found that it could be successfully used in the adulteration of syrups and sugar the production has increased with startling rapidity. It was proven in the case above referred to—Alberger *vs.* Hamlin and the Buffalo Grape Sugar Company—that the profits of one firm amounted to one-half a million dollars during the year, and that the profits on the amount of capital invested were simply fabulous. A glucose factory is better than a field of diamonds or a gold mine. Of course rivers of this fraudulent sweetness will soon flow through the land, and permeate every article of food or drink to which it can be made to assimilate in any form.

The means for detecting the adulteration are very easy. Glucose being less soluble than sugar, settles to the bottom of the cup and, when left to dry, forms a hard film, similar to gelatine. On the surface of syrup thus adulterated a film or skin forms on exposure to the air, which becomes corrugated as the exposure is prolonged. These tests are capable of detecting a very small percentage of the foreign element in sugar or syrup.

☞ The Palaski, N. Y., *Democrat* remarks as follows, concerning Professor Cook's "Manual of the Apiary:"

This excellent work has reached its seventh thousand. This shows the appreciation of that book by that portion of the public interested in bee-culture. We advise all to buy the book who are interested in rearing bees; if you are interested in the entomology of the bee; if you want to be posted in bee-botany; if you would learn of bee-enemies; and even if you are only in pursuit of instructive reading, told in an interesting manner, by one who thoroughly understands his subject.

☞ An exchange gives the following "phunny-dote:"

"Did any of you ever see a bee's sting?" inquired a teacher of a class.
"I have," exclaimed one.
"Where?" asked the teacher.
"Stuck in the nose of a fellow that caught a bee and tried to smell it," said the boy, laughing.

☞ The *Wisconsin Farmer* fully approves the articles on "Planting for Honey," which have from time to time appeared in the BEE JOURNAL, and copied a portion of one of them, with a a very warm indorsement.

SELECTIONS FROM OUR LETTER BOX

Utilizing Old Combs.—I put into winter quarters last fall 14 colonies of bees in chaff hives; only 4 of them came through alive, and they are not very strong. I have 80 frames, containing 125 to 150 lbs. of honey, from the colonies that died, and am desirous of building up again—how can I best use these frames of honey and comb? Please inform me through the next JOURNAL.
B. E. MILES.
Glenwood, Pa., April 22, 1881.

[You will find full instructions for utilizing them to the best advantage on pages 86 and 100 of the Weekly BEE JOURNAL.—ED.]

Nine-Tenths of the Bees Dead.—Nearly 9-10 of the bees in this section are dead; a few will purchase sparingly; others will abandon the pursuit. Many feel that a part of the family have died—their pets are missed. All feel that it is as necessary to care for our bees as for chickens, pigs and calves. The roads are impassable in some places, being blocked still with snow. The Rock River is as high as it has been for 30 years.
A. RICE.
Byron, Ill., April 21, 1881.

Best Hive for Use in Germany.—In this part of Germany we have two principal crops—first, the rape, which blooms in April and May, and second, the linden, which blooms in June and July. The first is the most important. Now, I would submit you these questions: What is the best hive? Is it better to have large populations in large hives, or small ones in small hives?
H. BUTSCH, JR.
Alsace, Germany, March 26, 1881.

[The standard Langstroth is the best for your latitude. This holds 10 frames, 17⅝ inches long by 9⅛ deep. It is better to have a large population in a medium-sized hive—that is, a hive which a good queen will always keep well filled with brood. Many of our successful honey producers remove two or three frames from the brood chamber, substituting division boards in their place, at the beginning of the honey flow, thus leaving the lower story entirely to the queen, and forcing the bees above with their surplus. Bear in mind, you never can make your hive too populous for the best results in honey.—ED.]

Upward Ventilation.—I put 9 colonies in the cellar early in the winter; one of them was very weak and of course it died; 2 had chaff boxes. I put on one and when I tried to put on the other, the bees were very cross; I put down the cover and thought I would leave them a little while, but being very busy at that time, I neglected to attend to it, and the result was I lost the colony. I have 7 colonies left in good condition. I am convinced that the cellar is the place to winter in and also that upward ventilation is required; mine were all open at the top except the one that died. Most of the bees in this vicinity are dead except those in cellars.
State Centre, Iowa. T. PARKE.

Bees Wintered Successfully.—I wintered my bees in the bee houses, the loss being so small that I do not miss them in the yard. They are in unusually good condition for the season. I have as yet handled but few and do not care to disturb them until it becomes necessary. I will comply with request of Mr. Reynolds in a short time—see page 118, No. 15. I know how it goes to lose my bees in past years, before I had so much experience. Now, when I can look on, it is about as it used to be with us, they died through the water. I am more than pleased with the Weekly BEE JOURNAL; could not keep house without it.
J. H. ROBERTSON.
Pewamo, Mich., April 27, 1881.

Robber Bees.—I have learned a successful remedy for robbing. I find out the hives the robber bees come from, then feed them with syrup made of coffee A sugar, placing it over the brood and letting it run down over the combs, and if they do not stop robbing then, I pour it over the brood until it runs out at the entrance, and that gives them work to keep other bees out of the hive. It matters not how rich a colony is, feed it as I direct, and you will conquer the robbers every time. I do this feeding early in the morning, and my bees are all living and doing well. Within six miles of my apiary I do not know of but 3 colonies living now. I live in hopes of a good honey harvest.
R. M. OSBORN.
Kane, Ill., April 21, 1881.

Wintered Well.—Spring has come at last. Such a winter man has seldom been called on to endure. My bees wintered well on the summer stands, without any protection, and I lost but one. They died in all parts of the hive—scattered in the upper and lower stories—but few together. They were strong, with plenty of sealed honey. Why was this? Neither combs nor hive were soiled.
P. P. COLLIER.
Mexico, Mo., April 17, 1881.

[Probably during a milder spell the cluster became divided, when a sudden change occurring in the weather, the bees became chilled, and thus perished before they could again unite.—ED.]

Bees in Good Condition.—I keep only 20 colonies—have no time to attend to more. I lost one during the past winter; all the rest are in fine condition. The one lost would have come through all right had I not unintentionally neglected to give it proper care last fall.
G. TOMPKINS.
Cincinnati, O., April 27, 1881.

The Loss in Michigan Two-Thirds.—As near as I can learn the loss of bees in Michigan has been ⅔ up to this time. The season has opened very fine now, and bees are gathering a little honey from soft maples, which seldom yield honey in this latitude. Daffodils are some of the earliest flowers that bees work on here.
J. O. SHEARMAN.
New Richmond, Mich., April 26, 1881.

The Cause of Bee Mortality.—In this vicinity last fall there were 462 colonies, now there are only 100. The few in chaff hives are doing well. The cause of this mortality began a year ago. Last April was hard on the bees; in June they were starving. For about a week in July bees did well; then it came off so hot that they did not make quite a living from that time out. So they did not have enough food to live on, and some of us resorted to feeding sugar. I tried grape sugar with coffee sugar, equal parts. (No more grape sugar for me to feed bees on in the winter.) Bees in good chaff hives will winter well; if they need food give them candy made of good sugar early in October, and they will winter well even though it be as severe as the one just past.
Hartford, Wis. I. S. CROWFOOT.

Rather Discouraging.—My report is rather discouraging; I have but a mere shadow to build upon. I have but 2 colonies left from 22 in the fall; but I expect to fill my yard and get some honey. There has been reported to me within a radius of 10 miles. 838 colonies put into winter quarters, of which only 140 are alive now; I think not more than 100 will live to see the clover bloom. Bees were nearly all wintered on their summer stands, but very few being packed or given any special care. Mr. G. P. Wilcox had 7 colonies packed with chaff cushions on sides and top, all came through strong, while his neighbor lost over 40 out of 47; they were black bees in log gums. My bees brought in the first pollen on the 19th inst. I like the Weekly BEE JOURNAL so well that I should take it if my bees had all died. Accept our thanks for your efforts in giving us such a paper so well suited to our wants.
P. A. RIEGLE.
Arlington, O., April 28, 1881.

Amber Cane Syrup, etc.—I have built a honey-house and intend ceiling it inside with matched pine lumber. Would you fill the space (4 inches) with sawdust? Would you use green sawdust, if you could not get it dry? Do you think it would do bees any harm to feed them amber cane syrup mixed with an equal amount of honey, during the fore part of May? I packed 28 colonies of bees in wheat chaff on their summer stands last fall, of which I lost 3. A good many bee-keepers about here have lost all their bees.
G. H. DENMAN.
Pittsford, Mich., April 20, 1881.

[Have the material dry with which you pack the air-space, whether it be sawdust, chaff, tan-bark, etc., and have a well-regulated ventilator. When bees are flying freely, we think you can feed amber cane syrup and honey with perfect safety.—ED.]

Losses in Central Wisconsin.—Bees hereabouts are somewhat dead. D. H. Wright went into winter quarters with 7 colonies, and came through with all alive, but 1 was queenless. I had 14 in the fall and lost 4; 2 of the 10 left are weak. D. D. Daniher had the same number as myself, and lost all but one. All the above were wintered out-doors in chaff and straw. Cellar-wintering, from what I hear, has been no better. A man by the name of Long lost all but 5 out of some 40 colonies put into the cellar.
JOHN CORSCOT.
Madison, Wis., April 21, 1881.

Had No Winter Flight.—I placed 157 colonies in the cellar Nov. 22; removed them to their summer stands April 21; found 9 dead and most all of the remaining 148 in good condition. The temperature in our cellar was 45° to 52°. Mr. Geo. W. House, of Fayetteville, in his essay read before the North Eastern Bee-Keepers' of New York, says a winter flight is necessary for successful wintering. I do not agree with him. Our bees have wintered well for the past two seasons without a flight.
C. M. WOOLVER.
Hallsville, N. Y., April 26, 1881.

Wintered in the Cellar Without Loss.—I put 39 colonies in the cellar Nov. 1, and took them out April 20; all had living bees in them, but 3 were queenless, and these I united with 3 weak ones. I now have 36 in fine condition. They were confined 170 days. There is a remarkable absence of brood, only 3 have any sealed, but the queens have filled from 2 to 3 frames each with eggs during the past 4 days. The bees are carrying pollen; the weather is delightful but the snow is a foot deep in the woods; as my bees all have a good supply of honey I do not anticipate any further losses. My bees are pure blacks and hybrids; the blacks wintered the best. I also put 15 colonies of Italians (a neighbor's) in my cellar, only 8 of which came out alive. Mrs. P., who had 26 colonies on the summer stands, covered with snow, lost all; others have lost heavily.
D. H. HOPKINS.
Bear Lake, Mich., April 24, 1881.

Wintered in a Clamp Without Loss.—I commenced the season with 40 colonies, increased to 70, obtained 1,650 lbs. of comb honey. Nearly all were in box hives, but I put the swarms in frame hives, one of which gave me 130 lbs., and 2 others about 100 lbs. each. I buried 66 colonies Nov. 13-15, and took 34 out of the first trench April 22, and 32 out of the other trench the 24th; all alive, but a few of them are weak in bees but have plenty of honey and to spare. Everybody who left their bees out-of-doors through the winter, in this locality, have lost nearly all, and some have lost badly when wintering in cellars. so I think I can cry "Eureka" when I lose none out of 66.
D. B. BOOMHOWER.
Rensselaerville, N. Y., April 25, 1881.

[Mr. B's report is refreshing in the midst of disasters. We should like to have him give his manner of preparing the clamp, etc., for a future number of the BEE JOURNAL.—ED.]

Pollen From Sawdust.—In this climate, New York, at an altitude varying from 1,300 to 2,000 feet above tide waters, no pollen is yet obtainable from any source. Bees work lively to-day on farina of grain. At least 35 per cent. of the stock of bees in this region last fall have gone "where the woodbine twineth." Even in chaff hives bees do not survive long winters without a due allowance of honey, and with both of those conditions present we have the phenomena of dead colonies in the winter and spring, nor does chaff packing triumph over other modes of salvation. The first time that bees gathered anything to store in their hives, this season, was April 14th, and the first material gathered was sawdust. Green or newly cut white ash trees were sawed into reaper teeth and the dust was taken from under the rows and carried upon land near by. Bees literally swarmed over the heaps of sawdust. The bees loaded their legs with a whitish substance, somewhat glutinous and sweetish. The dust is rich in the material gathered by the bees.
C. J. ROBINSON.
Richford, N. Y., April 23, 1881.

The Result.—The long winter is over and genial spring is here. What bees I have are now bringing in pollen from soft maples. I wintered 13 colonies on the south side of a tight board fence and lost 3; and I wintered 18 where the wind blew on them and lost 15. I have now 13 colonies; all appear to be doing well.
MRS. C. M. KINGSLEY.
Elvaston, Ill., April 28, 1881.

Melilot Clover as a Fertilizer.—Is melilot clover of much value to plow under to enrich poor or heavy clay soil? If it is a good fertilizer, it will do good to have that fact known in connection with its other qualities. The fertilizing value of white clover, also, may not be fully known.
P. MOYER.
Clark, Pa., April 25, 1881.

[As we have heretofore stated, melilot is an excellent fertilizer; some claim that it is superior to red clover.—ED.]

Lost 6 out of 22 Colonies?—I had 22 colonies last fall—11 in Langstroth hives packed with chaff on the sides and top, and 11 in Kidder hives. I lost 3 in each kind of hives. Nine-tenths of the bees in this section are dead. N. wintered 90 on the summer stands and lost 60; W., 24 in box hives and lost all; O. had 40, and but 3 weak ones remain; R. 17, and 1 left; A. wintered 22 in the cellar, and has 3 now; G. 14, none left; 50 or 60 more have lost bees in about the same ratio. During swarming time, will it be safe to cut out the queen-cells and turn the queen loose, without caging? I consider the BEE JOURNAL as a weekly very valuable, and much more so than a monthly.
L. DENSMORE.
Livonia Station, N. Y., April 27, 1881.

[It is not always safe to do so, but as a general rule, during the commotion and confusion incident to swarming, the advent of a strange queen passes without notice.—ED.]

Lost 13 out of 42 Colonies.—Bees are picking up nicely during the last week. I lost 13 out of 42 colonies. The cold spell in March was the worst on them. Cause of loss: insufficient ventilation.
C. F. MUTH.
Cincinnati, O., April 25, 1881.

Once 14; Now None.—There you have it. Just as I began to flatter myself that I knew something about bees, along came blizzard after blizzard, and snow after snow, till the poor bees had to give up; and I—well, I—shall have to get Cyprians, or something else, and begin anew. In this locality all the bees are dead—not one left. Some of my bees were in single and some in double-walled hives—some in old and some in new hives—those that lived the longest were in *new* double-walled hives. May the frequent visits of the Weekly BEE JOURNAL continue to cheer its readers for years to come.
A. G. BENEDICT.
Millard, Wis., April 11, 1881.

The Cause of Disaster.—My 163 colonies have dwindled to 76. The Italians are carrying in pollen to-day, while the blacks are only eager to pilfer from the remains of their neighbors. My bees were boxed and packed in chaff, after the most approved methods, but exposed to the west and north winds. After reading the reports given in the Bee Journal, with the experience of years and the lessons taught by the bee-keepers in this section, I am satisfied that it is more the place than any one condition. One of our bee-keepers reports a loss of 28 out of 30 in box hives unprotected and on the summer stands; another had 70, all boxed in chaff with shingled caps, all dead but 20; another had 17, all dead; another 60, a few weak ones left; several had from 3 to 10, all are dead; a Mr. Stinson had 113 placed on the east side of a large building and very much protected on all sides, boxed in coarse straw, and all are strong and healthy; another, situated on the east side of a chestnut grove, with box hives upon benches 3 feet high, no protection, and all are alive and strong, no signs of disease; another put 30 colonies into a cellar, and after this long blizzard winter all came out right. I am now compelled, after looking over all the testimony, to decide that more depends upon the place than any conditions of packing, boxing, etc. Mr. Muth, in a private letter just received, reports a loss of 25 per cent. Other prominent bee-keepers report even much greater losses. So I am not discouraged, but shall rally to new and untried methods to winter bees successfully. When one feels that the obstacles in profitable bee-keeping are almost surmounted, and that we are just now going to make some money and run the thing after our own notion, to get such a set-back takes the conceit out of us a little. It is really consoling that such veterans as Muth, Doolittle, etc., are fallible with the rest of us.

D. Videto.
North East, Pa., April 25, 1881.

Survival of the Fittest.—After a careful examination I find but 15 colonies out of 31 that are certainly all right—a loss of 51 per cent. The hybrids stood the winter much better than the natives—at least all the bees alive are well marked. They are now carrying in natural pollen. It is possible that this year may develop a hardier class for *the best only survive.*

F. A. Grove.
Kirksville, Mo., April 24, 1881.

Lost 33 out of 85 Colonies.—Last fall I had 85 colonies in good condition. I wintered them in the cellar, ventilation same as on summer stands. I now have 45 good colonies and 7 weak ones, showing a loss of 33, nearly all occasioned by starvation; 3 only had the dysentery. Fully 75 per cent. of the bees in this locality are dead. Success to the Bee Journal.

J. H. Davis.
Stockbridge, Wis., April 10, 1881.

Loss of Bees in Western Ontario.—Owing to the increase in other branches of my business I was compelled last fall to sell my bees and supply trade, as I stated in the Bee Journal in January, keeping only a few bees for some experiments I wished to make. Perhaps I was fortunate, as I find by inquiries and correspondence that 90 per cent of the bees in this section of Ontario have perished during this long cold winter. My bees did not fly from Nov. 5 until March 4. Those stored in well built houses and those packed in chaff on the summer stands shared alike; about all are dead now. What bees I had any personal knowledge of last fall had so much unsealed honey that I was confident, if the winter was a hard one, they could not survive. There are many causes for this great loss, but I believe the great cause is the want of proper care and attention in August and September. The only men that make a success of bee-farming are those who study the business, read and experiment, always devoting the necessary time and attention to them. All who have not learned this must do so sooner or later. Why not attend to the bees? If they are worth having they are worth attending to; who ever succeeded in any business that did not look after it properly? Where the bees are to come from to replenish is something I don't know. But I think any persons not too far away, having bees for sale, who may advertise them in the Bee Journal, will get hundreds of orders from this section.

W. G. Walton.
Hamilton, Canada, April 20, 1881.

It Pays to Take the Weekly.—Every apiarist should take the Weekly Bee Journal. Last year I lost money simply because the Monthly did not reach me in time to tell me that the crop was short. I sold my honey a few days too soon. We are finally favored with some warm weather. On Saturday, April 23, the mercury reached 66° Fahr., and lots of bees swarmed out; I hope to have some left.

H. B. Rolfe.
Westfield, N. Y., April 24, 1881.

Bee-Keeping in Kansas.—The losses of bees in this vicinity have not been accurately ascertained but will probably rate about 50 per cent. Bees are mostly wintered here on summer stands without protection, and losses are usually for want of stores. Such was the case here generally the past winter, with few exceptions. There was only one month during winter in which bees did not fly. I successfully wintered a light nucleus on 4 Langstroth frames, on the summer stand, by covering the hive with straw and closing the entrance entirely during the coldest weather. Bees are now gathering honey from wild raspberry and plum, which are 2 or 3 weeks later than usual. The Western National Fair Association, at their fair at Lawrence, Kan., in 1880, gave first and second premiums of $25.00 and $12.50 for best and second best 25 lbs. of honey in combs shown in glass boxes. As the tendency seems to be to planting especially for bees, what more inviting field for the apiarist than Kansas, with her cheap lands and mild climate?

D. P. Norton.
Council Grove, Kan., April 25, 1881.

[Such liberal premiums ought to induce the Kansas bee-keepers to give their best attention to production and marketing, and thus elevate the profession by the adoption of the most scientific and progressive management.—Ed.]

Half of the Bees Dead.—About ½ of the bees in this locality are dead, including nearly all those in box hives. Mine are in movable frame hives, and were wintered on the summer stands, covered with straw, and having ventilation at the top. I lost 4 out of 21, caused by ice forming at the entrance and smothering them; they had plenty of stores.

Fred L. Merrick.
Kankakee, Ill., April 25, 1881.

Bees in Kane Co., Ill.—The majority of bees in this part of Illinois are very quiet. Mr. Marvin put up 90 colonies of Italians last fall in his bee cellar, in this city, and has taken out 70 dead ones. Those alive are so weak in bees that they will not be able to do much in the way of laying up a surplus, no matter what the season may prove to be. His bees in this place were put up early in November, and were taken out of the cellar on the 22d and 23d inst., both days being quite warm. His apiary at the farm, some 14 miles west of this city, contained about 170 colonies last fall. This apiary was also moved to the cellar early in November, the majority of the colonies having ample stores. The colonies were removed from the cellar on the 23d and 24th inst. About 70 colonies were dead and the balance were in a moderate condition. Some of the dead had from 30 to 40 lbs. of honey. To-day, April 25, the soft maples are in full bloom and the prospect for an abundance of white clover is very promising. We fear, however, that our strain of Italians will not be able this season to overstock the market with honey. Henceforth we must pay more attention to the hardy strains, such as have sprung up in various parts of Michigan, then we can laugh at such mild winters and poor honey seasons as the last have been.

M. M. Baldridge.
St. Charles, Ill.

Much Encouraged.—I am much encouraged by reading the Weekly Bee Journal, as I have wintered 8 colonies successfully, without loss, which is more than my neighbors have done. Nearly all I have conversed with have lost heavily. I have double-walled, movable frame hives, and use absorbents over the frames. To these I give credit for my success in wintering.

S. Oviatt.
Newton Falls, O., April 25, 1881.

Packed in Wild Hay.—I packed 3 colonies of hybrids in wild hay last November. They had no flight till March, when they were all right. Now the parent colony is dead and one is weak and one strong.

L. C. Wemple.
Roger's Park, Ill., April 21, 1881.

Good Results.—I think ⅔ of the bees in this section are dead. I wintered 50 colonies with a loss of only 2; the balance are in good condition. I owe my success to studying the Bee Journal. My bees were housed 134 days with no chance for a flight. Last year was the best we ever had for honey. The Weekly Bee Journal is a 1, and every bee-keeper should have it, just as much as hives to keep his bees in.

C. F. Greening.
Grand Meadow, Minn., April 20, 1881.

Spring has Come at Last.—The soft winds from the south of last week have taken off the snow and brought mother earth to view, while all the spring birds, frogs, and all animate nature, seem to join in the chorus, singing, "spring has come." This month has been dry up to last night, when we had a thunder storm. Bees gathered pollen for the first time, to-day, on hazel brush. I got my bees out on April 23, and gave them an overhauling. I found 12 colonies dead out of 76; they had plenty of honey. The medium colonies wintered the best. The last 2 or 3 weeks told on them; they seemed to think it was time to have their liberty. The ice in the lake holds its own yet, but must soon give way.

M. S. Snow.
Osakis, Minn., April 25, 1881.

Lost 37 out 40 Colonies.—The bees are nearly all dead in this vicinity. I have kept bees for 12 years and never before lost a colony in wintering when they had honey enough; but this winter I lost 37 out of 40 having plenty of honey. They died of dysentery, caused from unripe honey, gathered late in the fall. I packed them as usual. I use a box with 3 inches of space on the bottom, and all around the hive, filled with sawdust, leaving the entrance open ¼x2 inches; two thicknesses of carpets over the frames and 9 inches of chaff on the carpet. I like the Weekly Bee Journal very much.

F. F. Alderfee.
Mainland, Pa., April 25, 1881.

Bees in Maine.—We have had rather a hard winter, or perhaps I ought to say, hard spring, in Maine. I think about ½ of the bees are dead; some have lost all, others from ⅙ to 11-12, and still they are dying. I have lost 10 out of 50, and may lose more. I tried to winter colonies that were too small, consequently they could not keep up the heat and have "gone where the woodbine twineth," though I have some of the weak ones that are now gaining in bees. The cause of my "spring dwindling" is old and unprolific queens. I have lost 3 that had plenty stores of honey, and were all clean; and 3 or 4 with dysentery. The bee-keepers of Piscataquis, Penobscot and Somersett counties, met at Dexter, the 14th of April, to form a Bee-Keepers' Association, to be called the North Eastern Bee Association, of Maine. They chose officers, and in consequence of the bad going and the small attendance, will meet again on May 12.

Lucian French.
Dexter, Maine, April 21, 1881.

Good.—I wintered 62 colonies and lost but 2, leaving 60. Some in this locality have lost all their bees, others ½, but as a general thing ¾ of the bees are dead.

B. F. Sanford.
Plover, Wis., April 22, 1881.

SPECIAL NOTICES.

☞Single copies of the Journal are sent postage paid for 5 cents each.

☞The attention of bee-keepers is directed to the advertisement of Champion Bee Hive Manufacturing Co.

☞Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

☞The Volume of the Bee Journal for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

☞When changing a postoffice address, mention the *old* address as well as the new one.

☞We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

☞Notices and advertisements intended for the Weekly Bee Journal must reach this office by Friday of the week previous.

☞We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

☞Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

Food for the Brain and Nerves that will invigorate the body without intoxicating, is what we need in these days of rush and worry. Parker's Ginger Tonic restores the vital energies, soothes the nerves and brings good health quicker than anything you can use.—*Tribune.* See other column. 18w4t

☞The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

Premiums.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the Journal for a year *free*. Do not forget that it will pay to devote a few hours to the Bee Journal.

☞At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

☞Sample copies of the Weekly Bee Journal will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

☞It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

HEADQUARTERS IN THE SOUTH,
for the Manufacture and Sale of
BEE-KEEPERS' SUPPLIES
SIMPLICITY
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LANGSTROTH HIVES
AND FRAMES,
The New All-in-one-piece Sections!

Having purchased, from A. I. Root, a machine for making these sections, I am ready to supply them in any quantity. Comb Foundation, made of pure yellow wax, and worked on shares; Honey and Wax Extractors, Knives, Bee Smokers, etc.

Italian Queens & Bees!

all bred from imported mothers of my own importation. Dollar Queens, ready April 1st, $1.10, until June 1st; after, $1.

Tested Queens from 1st March to 1st November Safe arrival guaranteed and all queens sent by mail, I send no queens that I would not have for myself. Full colonies of Italian Bees from $5 to $8.50, according to quantity, etc. Early 4-frame nucleus, with Tested Queen, $5. No black bees in the neighborhood. Send for my Illustrated Catalogue of prices, etc Address,

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Italian, Cyprian & Holy Land Queens,

Single Queen, Tested	$2 00
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By mail, safe arrival guaranteed.

3-frame nucleus	$3 00
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Furnished after June 1st.
By express, safe arrival guaranteed.

W. P. HENDERSON, Murfreesboro, Tenn.
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—o—

The only swarm of bees alive in this township, contains a queen I bought of you; they are lively. J. R. M. ALLEN.
Greencastle, Ind., April 16, 1881.

Of the 31 dollar queens purchased of you last season, only one proved impurely fertilized. They have wintered finely, while three-fourths of the bees in this section are dead.
L. DENSMORE.
Livonia Station, N. Y., April 11, 1881.

Could give scores of letters in praise of

Our Strains of Italians,

like the above. If you want bees that are hardy enough to

SURVIVE OUR COLDEST WINTERS,

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Before ordering goods, send us a list of articles you wish to purchase, and get our price for the same.

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Send for our 20th Annual Price List. Full Colonies, Nuclei and Queens at reduced rates, also headquarters for Apiarian Supplies in New England.

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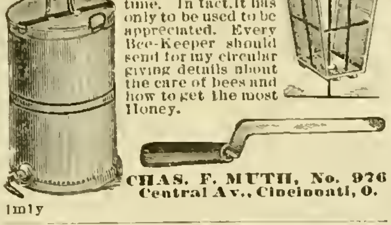

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AND BOXES.

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Send for Price List. **G. B. LEWIS,**
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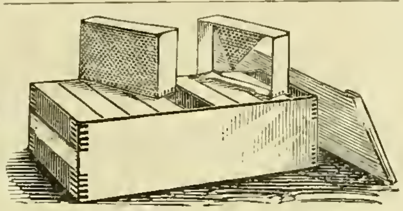

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I guarantee all my Queens to be purely mated.
☞ Send for price list—free.

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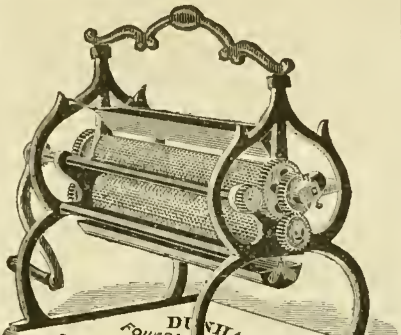

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Enlarged Edition, contains over **1,500,000** Industrial Facts, Calculations, Processes, Trade Secrets, Legal Items, Business Forms, etc., of vast utility to every Mechanic, Farmer, and Business Man. Gives 200,000 items for Gas, Steam, Civil and Mining Engineers, Machinists, Millers, Blacksmiths, Founders, Miners, Metallurgists, Assayers, Plumbers, Gas and Steam Fitters, Bronzers, Gilders, Metal and Wood Workers of every kind, Builders, Manuf'rs and Mechanics. 500 ENGRAVINGS of Mill, Steam, and Mining Machinery, Tools, Sheet Metal Work, Mechanical Movements, Plans of Mills, Roofs, Bridges, etc. Arrangement and Speed of Wheels, Pulleys, Drums, Belts, Saws, Boring, Turning, Planing, & Drilling Tools, Flour, Oatmeal, Saw, Shingle Paper, Cotton, Woolen & Fulling Mill Machinery, Sugar, Oil, Marble, Threshing & Rolling Mill, do., Cotton Gins, Presses, &c. Strength of Teeth, Shafting, Belting Friction, Lathe Gearing, Screw Cutting, Finishing Engine Building, Repairing and Operating, Setting of Valves, Eccentrics, Link & Valve Motion, Steam Packing, Pipe & Boiler Covering, Scale Preventives, Steam Heating, Ventilation, Gas & Water Works, Hydraulics, Mill Dams, Horse Power of Streams, etc. On Blast Furnaces, Iron & Steel Manufacture, Prospecting and Exploring for Minerals, Quartz and Placer Mining, Assaying, Amalgamating, etc. 461 TABLES with 500,000 Calculations in all possible forms for Mechanics, Merchants and Farmers. 800 items for Printers, Publishers and Writers for the Press. 1,000 items for Grocers, Confectioners, Physicians, Druggists, etc. 300 Health Items. 500 do. for Painters, Varnishers, Gilders, etc. 500 do. for Watchmakers & Jewelers. 400 do. for Hunters, Trappers, Tanners, Leather & Rubber Work. Navigation, Telegraphy, Photography, Book-keeping, etc., in detail. Strength of Materials, Effects of Heat, Fuel Values, Specific Gravities, Freights by rail and water—a Car Load, Stowage in Ships, Power of Steam, Water, Wind, Shrinkage of Castings, etc. 10,000 items for Housekeepers, Farmers, Gardeners, Stock Owners, Bee-keepers, Lumbermen, etc. Fertilizers, full details, Rural Economy, Food Values, Care of Stock, Remedies for do., to increase Crops, Pest Poisons, Training Horses, Steam Power on Farms. LIGHTNING CALCULATOR for Cubic Measures, Ready Reckoner, Produce, Rent, Board, Wages, Interest, Coal & Tonnage Tables. Land, Grain, Hay, & Cattle Measurement. Seed, Ploughing, Planting & Breeding Tables, Contents of Granaries, Cribs, Tanks, Cisterns, Boilers, Logs, Boards, Scantling, etc., *at sight.* Business Forms, all kinds, Special Laws of 49 States, Territories and Provinces (in the U. S. and Canada), relating to the Coll. of Debts, Exemptions from Forced Sale, Mechanics' Lien, the Jurisdiction of Courts, Sale of Real Estate, Rights of Married Women, Interest and Usury Laws, Limitation of Actions, etc.

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The work contains 1,016 pages, is a veritable Treasury of Useful Knowledge, and worth its weight in gold to any Mechanic, Business Man, or Farmer. Free by mail, in fine cloth, for $2.50; in leather, for $3.50.

THE AMERICAN BEE JOURNAL

BATES FOR ADVERTISING.

A line will contain about **eight words**; fourteen lines will occupy one inch of space.

One to three weeks, each insertion,	**20**	cts. per line.
Four " or more" "	**18**	" "
Eight, " " " "	**15**	" "
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THE AMERICAN BEE JOURNAL is the oldest Bee Paper in America, and has a large circulation in every State, Territory and Province, among farmers, mechanics, professional and business men, and is, therefore the best advertising medium for reliable dealers. .Cases of *real* imposition will be exposed.

THOMAS G. NEWMAN,
974 West Madison Street., Chicago, Ill.

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A Safe and Sure Means of restoring the youthful color of the hair is furnished by Parker's Hair Balsam, which is deservedly popular from its superior cleanliness. 18w4t

ONE-PIECE SECTIONS—pound and prize size —$5.00 per $1,000. Sample section free.
18sm4tp **BYRON WALKER**, Capac, Mich.

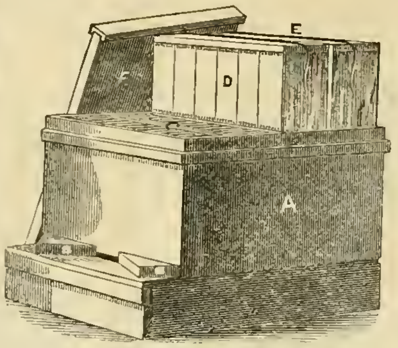
MAPLE SUGAR WANTED.—I wish to buy for cash a quantity of **PURE** Maple Sugar Give price, quality, quantity and how put up. Would prefer to hear direct from producers.
18wlf M. M. BALDRIDGE, St. Charles, Ill.

SEND FOR MY CIRCULAR and PRICE LIST of Italian Colonies, Queens, Nuclei and Apiarian Supplies.
H. H. BROWN,
18mtf **Light Street, Col. Co., Pa.**

EGGS FOR HATCHING—From all the varieties of Poultry, Brahmas, Cochins, Hamburgs, Polish Leghorns, Plymouth Rocks, Roan Gauya, Pekin and Aylesbury Ducks. Eggs carefully packed from our prize birds at $1.50 per 13. Four or more settings at $1 per 13. Our Plymouth Rocks and Pekins have never been beat. A few first class fowls and Berkshire pigs to spare.
SMITH & BRO., Stony Brook, N. Y.
Mention the American Bee Journal. 18m2t

Italian and Hybrid Bees.

From 50 to 75 Colonies, in Langstroth Hives, for sale. **ADAM FUERBRINGER,**
18w4t Jefferson, Wis.



Heddon's Langstroth Hive.

Send for Circular to
JAMES HEDDON,
18m3t **Dowagiac, Mich,**

☞ Those having Bees to sell, or to let on shares, please address as above. JAMES HEDDON.

THE ORIGINAL QUINBY SMOKER,

with upright bellows and tube, has been upon the market five years longer than any smoker made.

"The largest bee-keepers use them."

"The Hetherington Bros. are the most extensive bee-keepers in the United States."

Cherry Valley, N. Y., March 22, 1881.

After testing your smokers with others of the best make, I do not hesitate to order two dozen for use in our apiaries. When we use a Smoker we make a business of it, running it all day and burning hard maple wood, which tests the construction most thoroughly. Those we have been using admit coals into the bellows, which burn the leather. The tube in your Quinby Smoker running further into the fire-box, must prevent this in a great measure.

J. E. HETHERINGTON.

We warrant our new Double-Blast to be the BEST Smoker made, or will refund the money.

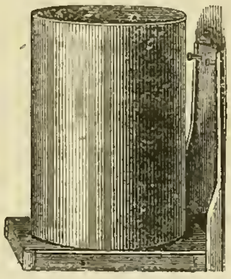
Prices by mail—Medium, 2 inches........$1 50
Large, 2½ inches........ 1 75

QUINBY'S NEW BEE-KEEPING,

By mail........$1 50

Send for it, and learn how we were enabled to obtain over 15,000 lbs. of honey from 176 colonies last season.

Alsike Clover Seed a Specialty.



The Van Deusen Feeder, with our attachment, as shown in the cut, is perfection itself.
Send for illustrated circular describing all goods.

L. C. ROOT & BRO.,
17 Mohawk, N. Y.

WILBOR'S COMPOUND OF
PURE COD LIVER
OIL AND LIME.

Wilbor's Cod-Liver Oil and Lime.—The great popularity of this safe and efficacious preparation is alone attributable to its intrinsic worth. In the cure of Coughs, Colds, Asthma, Whooping Cough, Bronchitis, Scrofulous Humors, and all Consumptive Symptoms, it has no superior, if equal. Let no one neglect the early symptoms of disease, when an agent is at hand which will cure all complaints of the Chest, Lungs or Throat. Manufactured only by A. B. WILBOR, Chemist, Boston. Sold by all druggists.

C. Olm's Comb Foundation Machine.

☞ Send for Sample and Circular.
18mtf **C. OLM**, Fond du Lac, Wis.

Nuclei, Cyprian Queens and Bees,
CHEAP.

I will sell my bees, 100 colonies of Cyprians, in Langstroth hives, and in good condition. Last season, neighbor J. S. Hughes and I Cyprianized all of our bees, and those within range, with Queens reared from the Jones importation, and Hoffman's drones. Prices after June 1st: 1 frame Nucleus, from $2.00 to $2.50; 2-frame, $3.00 to $3.50; 3-frame, $4.00 to $1.50. Nuclei will be well stocked with bees and brood, including pure Cyprian queen of this year's rearing. Full colonies (10 Langstroth frames) $7.00 to $9.00. A few mismated Cyprian queens for sale at 60c. in Peet cage. Warranted Cyprian queens at $1.50. Tested, after July 1st, $2.00. No foul brood in this section. Bees for sale by the pound after June 1st. Satisfaction guaranteed. For further information and reference please address,
(No circulars.) J. B. R. SHERRICK,
Mt. Zion, Macon County, Ill.
(This ad. appears but once.) 18w1t

Pure Italian Bees for Sale.

I have for sale twenty colonies of **Pure Italian Bees** in good condition, and in good movable comb hives. Address, THOS. HEATON,
18w1tp Moore's Hill, Dearborn Co., Indiana.

I HAVE NOW OVER

300 COLONIES

of Pure Italian Bees, in good condition, in 10 frame Langstroth hives. Orders for

ITALIAN QUEENS,

Nuclei and Full Colonies,

are now being booked and will be filled in rotation as received, commencing about June 1st., at the following prices:

Tested Queens, each........$2 50
" " per half-dozen........13 50
1 frame Nucleus, with Tested Queen..... 5 00
2 " " " " " 5 50
3 " " " " " 6 00
4 " " " " " 6 50
Full Colonies, each........12 00
" " in lots of 5, each 10 00
" " " 10, each 9 00

I will use all possible care in preparing the above for shipment, but cannot guarantee safe arrival, except on queens any distance less than 1,000 miles.

ALSO

100 COLONIES

OF

BLACK AND HYBRID BEES,

In Langstroth hives, in quantities of not less than 5 colonies at **$8.00** each, which I will ship direct from the South, at any time after April 15th.

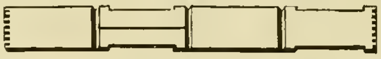
Also, 200 Colonies of Native Bees,

in Box Hives, delivered on Mississippi River Steamboat any time after April 15th, in lots of 10 or more, at **$6.00** each.

☞ The Colonies of Hybrids and Natives are very strong in bees reared this spring, and combs well filled with brood. They can be transferred or divided by May 1st, and increased in time for white clover and basswood surplus.

ALFRED H. NEWMAN,
972 West Madison St., CHICAGO, ILL.

SECTIONS AND HIVES.



James Forncrook has just received a patent on his Machine for Scoring Honey Box Sections, dated March 29, 1881, No. of Patent, 239,476. He has not sold any shop rights on this machine, nor does he intend to; therefore, any one using a machine to make the One-Piece Section are infringing.

We will make the "Boss" Section, any size up to 5x6, for $5.00 per 1,000. Material for Langstroth hive 50c.

JAMES FORNCROOK & CO.
Watertown, Jeff. Co., Wis., April 2, 1881. 18mtf

DON'T BUY SUPPLIES

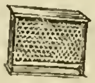
Till you have read my new price list for the spring trade. Wax is cheaper now, so I can sell you a fine article of Comb Foundation cheap, and made on the *new* Dunham and *new* Vandervoort machine. Italian and Cyprian Queens, Bees, Hives, Sections, etc.
Price List free to all.

J. V. CALDWELL,
12w6m Cambridge, Henry Co., Ill.

THE Headquarters in the South

for **ITALIAN** and **CYPRIAN BEES** and **QUEENS, FOUNDATION** and **APIARIAN SUPPLIES.** If you want Early Queens, from stock selected for their most desirable qualities, or want Imported Queens, Dunham Foundation in large or small quantities, or Apiarian supplies of any kind, at moderate prices, send for my new Illustrated Price List. Pure Beeswax worked on shares and bought for cash. Address,
9m6t **Dr. J. P. H. BROWN**, Augusta, Ga.

FLAT-BOTTOM COMB FOUNDATION,



high side-walls, 4 to 16 square feet to the pound. Circular and samples free.
J. VAN DEUSEN & SONS,
Sole Manufacturers,
1ltf Sprout Brook, Mont. Co., N. Y.

BAILEY'S SWARM-CATCHER is a decided success. Prices reduced. Send for circulars and testimonials. Address,
17w8t J. W. BAILEY, Box 408, Ripon, Wis.

ITALIAN QUEENS, Full Colonies, Nuclei and Bee Hives specialties. Our **new** Illustrated Catalogue of Bees, Supplies, Fine Poultry, Small Fruits, &c., **Free.** ☞ Send for it and save money.
J. T. SCOTT & BRO., Crawfish Springs, Ga. 2w32tx

HENRY ALLEY,

Wenham, Essex County, Mass.

Cyprian, Holy Land, Hungarian and Italian

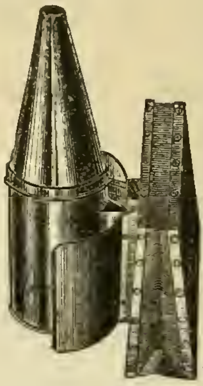
QUEENS AND BEES.

I have made queen-breeding a specialty for the last 20 years. All my queens are reared on a new and scientific principle, combining beauty, purity, industry and docility. No in-and-in or nuclei-bred queens sent out by me. All queens warranted pure, and safe arrival guaranteed, by mail. Warranted queens $1.00 each, choice selected $1.50 each, tested $2.00 each. Send for my 20th annual circular and price list. Try these new races and their crosses. 17w2t

VANDERVOORT FOUNDATION—10 sq. ft. per lb., with natural base, by the pound or square foot. Send for samples.
18w1tp **G. W. STANLEY**, Wyoming, N. Y.

THE ORIGINAL

Patented Jan. 9, 1878, and May, 1879; Re-issued July 9, 1878.



If you buy a Bingham Smoker, or a Bingham & Hetherington Honey Knife you are sure of the best and cheapest, and not liable to prosecution for their use and sale. The largest bee-keepers use them exclusively. Twenty thousand in use—not one ever returned, or letter of complaint received. Our original patent Smokers and Honey Knives were the only ones on exhibition at the last National Bee-Keepers' Convention, 1880. Time sifts the wheat from the chaff. Pretensions are short-lived.

The Large and Extra Standard have extra wide shields to prevent burning the fingers and bellows. A real improvement.

Send postal card for testimonials.

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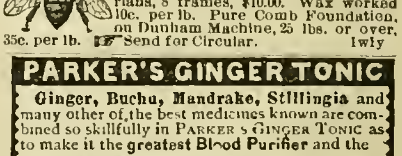
Extra Standard Bingham Smoker........2 " 1 25
Plain Standard Bingham Smoker ....2 " 1 00
Little Wonder Bingham Smoker ....1¾ " 75

If to be sent by mail, or singly by express, add 25c. each, to prepay postage or express charges.
To sell again, apply for dozen or half-dozen rates.
Address,

BINGHAM & HETHERINGTON,
9wtf ABRONIA, MICH.

Given's Foundation Press.

The latest improvement in Foundation. Our thin and common Foundation is not surpassed. The only invention to make Foundation in the wired frame. All Presses warranted to give satisfaction. Send for Catalogue and Samples.
1wly **D. S. GIVEN**, Hoopeston, Ill.



1wly

Rev. A. SALISBURY,

Camargo, Douglas County, Ill.

Warranted Italian Queens, $1.00; Tested Italian Queens, $2.00; Cyprian Queens, $2.00; Tested Cyprian Queens, $4.00; 1 frame Nucleus, Italians, $4.00; 1 frame Nucleus, Cyprians, $5.00; Colony of Italians, 8 frames, $8.00; Colony of Cyprians, 8 frames, $10.00. Wax worked 10c. per lb. Pure Comb Foundation, on Dunham Machine, 25 lbs. or over, 35c. per lb. ☞ Send for Circular. 1wly

PARKER'S GINGER TONIC

Ginger, Buchu, Mandrake, Stillingia and many other of the best medicines known are combined so skillfully in PARKER'S GINGER TONIC as to make it the **greatest Blood Purifier** and the **Best Health and Strength Restorer ever used.**

It cures **Dyspepsia, Rheumatism, Neuralgia, Sleeplessness**, and all diseases of the **Stomach, Bowels, Lungs, Liver, Kidneys, Urinary Organs** and all **Female Complaints.**

If you are wasting away with Consumption or any disease, use the TONIC to-day. No matter what your symptoms may be, it will surely help you.

Remember! This TONIC cures drunkenness, is the **Best Family Medicine** ever made, entirely different from Bitters, Ginger Preparations and other Tonics, and combines the best curative properties of all. Buy a 50c. bottle of your druggist None genuine without our signature on outside wrapper. HISCOX & Co., Chemists, New York.

PARKER'S HAIR BALSAM The best and most economical Hair Dressing

Champion Bee Hive Manufacturing Company,
Newcomerstown, Tuscarawas Co., Ohio,
Manufacturers of all

APIARIAN SUPPLIES.

The above cut represents our all-in-one-piece Section with a square groove. Having different machines for manufacturing these Sections, we make them in thickness according to size, so when they are folded together they are as substantial as if nailed. **ITALIAN QUEENS**, Nuclei and Full Colonies for sale. See Price List. Sample Section and Price List free. 17w2t

THE CANADIAN FARMER

THE ONLY

Agricultural Weekly

PUBLISHED IN THE

DOMINION OF CANADA.

This practical journal is now in its **Third Year**, and meeting with immense success. The low price of its subscription ($1.00 per year) in its new and improved form (16 pages 13½x10½, folded and pasted) makes it very popular. Its editors are all practical men. It is the **Best Advertising Medium** in Canada. Sample copies sent free to any address.
11w26tx **N. B. COLCOCK**, Welland, Ont.

OLDEST BEE PAPER IN AMERICA

THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., MAY 11, 1881. No. 19.

THE AMERICAN BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,

EDITOR AND PROPRIETOR.

974 WEST MADISON ST., CHICAGO, ILL.

TERMS OF SUBSCRIPTION:

WEEKLY—(52 numbers) $2.00 a year, in advance. Three or Six Months at the same rate.

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☞ Any person sending a Club of six is entitled to an extra copy (like the club) which may be sent to any address desired. Sample copies furnished *free*.

☞ Remit by money-order, registered letter, express or bank draft on Chicago or New York, payable to our order. Such *only* are at our risk. Checks on local banks cost us 25 cents for collecting.

Free of postage in the United States or Canada.
Postage to Europe 50 cents extra.

Entered at Chicago post office as second class matter.

CORRESPONDENCE.

For the American Bee Journal.

Keeping Bees for Profit.

E. A. THOMAS.

The apiarist who is keeping bees solely for profit will do well to examine his stock and see if he has a hardy, prolific and industrious strain or not. If he finds them deficient in this point, he should at once introduce new blood into his apiary, for, as far as dollars and cents are concerned, the hardy, prolific and industrious strains are the ones to have, and all other considerations should be thrown aside.

First, I consider hardiness a very essential quality in a good honey stock, for here in the north we frequently have very severe winters, and we rarely have a very mild one. Now, what we want is a race of bees that will stand this cold climate and come through strong and vigorous in the spring, for how can anyone expect good results during the honey harvest if his bees just manage to live through and sometimes hardly do that?

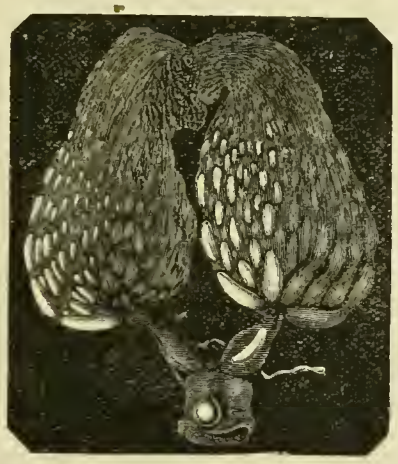
In looking over the JOURNAL I notice that a large number are reporting their bees ½ and ¾ dead. Well, when I read such reports I always think that the rest of them might as well be dead, for all the good they will do their owner the coming season. Why is it that some have good success in wintering, in cellar and out, in all ways and under all conditions, while others lose their bees no matter how careful they are, or in what manner they winter them? Simply because some have a good, strong, hardy race that has become acclimated to this cold climate, while others have a weak, puny one that, no matter how handsome they may be, will bring nothing but disaster to their owner. For this reason I would caution beginners in bee-culture against investing too much in Cyprians until they have in a manner become acclimated.

The second point of excellence in a good working stock is prolificness. After we have wintered our bees safely, and find them in good condition in the spring, the next thing to do is to get them to breed up rapidly so that when the honey comes they will be ready for it.

Now in regard to the third point, industry. Of course a strong colony of lazy bees will be of no more value than a mere handful of industrious ones. Some years ago I had a very strong colony which kept their hive full of brood and crowded with bees, but not 10 lbs. of surplus did I get from it all through the season, while from one that stood beside it I obtained 80 lbs.

As to which of these 3 excellent qualities is the most important is hard to tell; for of course an industrious strain that will not winter well is of no more value than a hardy and prolific one that will not work. It is only when we can combine all these that we can hope for the best results. Several years since, I determined to see what I could do in the way of improving my own stock, and after keeping a close record of my queens, and using the greatest care in rearing and mating them, I began to see a marked improvement. I have now bred up a strain of bees that, while they excel in the 3 most important points, viz: hardiness, prolificness and industry, have lost none of their color. I agree with the editor of the BEE JOURNAL, that it is not necessary to breed dark colored Italians in order to obtain the above results. I never rear any queens to sell that I would not introduce into my own colonies and so have no poor drones hatching in nuclei. To this fact I attribute much of my success. I would advise all those who have had no experience in rearing queens to go carefully. Procure some good stock and after proving it to be what you want, endeavor to keep it up to the required standard of excellence. Many an apiarist, after securing, at great trouble and expense, a choice strain of Italians, has suffered his vigilance to relax and allowed his bees to degenerate. It is only by continual care that we can meet with good success. If queen-breeders will only keep their eyes open and keep steadily at work, I believe Mr. Newman's predictions will come true, and the *Apis Americana* will be the coming bee.

Coleraine, Mass., April 15, 1881.



Egg Tubes of a Prolific Italian Queen.

Apis Dorsata not to be Found in Java.

Again are we indebted to Mr. Jones for copies of private letters, of recent date, from Mr. Benton. We give them entire, as the bee-keepers of both continents are awaiting the result of Mr. Benton's mission with interest. It will be observed that after weeks of laborious toil and suffering many hardships, he has been unable to find the coveted prize—*Apis dorsata*.

Soerakarta, Vorstenland, Java,
March 7, 1881.

MR. D. A. JONES, My Dear Sir:—I have delayed writing somewhat later than I intended to have done, hoping each day that I could report greater success, but thus far I have not caught a single glimpse of *Apis dorsata* nor any bee but the *Trigona* and *Apis Indica*. I have traveled over much of the west part of Java and have penetrated to the interior of the Island where the native Javanese princes are still holding sway, having, with their war-like adherents, given the Dutch government so much trouble that at last, to settle the matter, the government assigned each an interior province.

I have climbed several mountains in my search, and once reached a height of 10,000 feet upon a volcano, after a weary march up, up, through dripping, tangled vegetation, over rocks, and through streams, seven hours constantly upward, my way lit by a torch, for it was night, because if I left the foot of the dormant volcanic mountain in the day time I would have the heat of the day for my upward journey, and then find the mountain enveloped in clouds after ten in the morning.

This mountain journey did not show me a single bee, although the morning I came down was a bright warm one; moreover, I became convinced that it would be rare indeed to find in the west of Java primeval forest any bees of the genus *Apis*. This was the first time that I had reached the thick primitive forest, and I found it far different from anything I had previously seen. To understand it you must first know that for the most part, these people live in villages as do the peasants of Cyprus and Palestine, and beyond the district where there are villages they rarely or never go. Now, on these mountains it rains almost every day in the year and the air is, except on the summits, never cold; thus you will be ready to comprehend that a primitive forest in Java is composed of giant trees filled in with a thick undergrowth of bamboo and the whole interlaced with vines. So thick is the undergrowth of bamboo and tree ferns with climbing vines and shrubs that it is wholly impossible to proceed a rod without cutting one's way.

It rains so much, and the moisture which gathers each night is so great, that everything is constantly dripping wet, and moss covers all of the trunks and branches of the trees as well as every fallen body and every rock. There is absolutely no place for the bees. Few of the trees are hollow; there are not many flowers that would attract the bees. At last in my search I have reached the very heart of Java, but see no great encouragements here. No one seems to know anything of any bee but the common bee of East India—*Apis Indica*—which is here very yellow, and is everywhere to be seen on sweet substances.

Had it not been for the bees I brought with me I would not have staid many days in Java, but they would very likely—some of the colonies I mean, have played out soon had I not remained here to care for them every few days. Of course these people—the Dutch officials do not know what constitutes a strong colony of bees, and thus far I have, by equalizing, kept the queens alive, and when I last saw them about 3 or 4 days ago they gave very encouraging signs. I asked 60 guilders each for the colonies, that is £5 each, agreeing to stay in Java and to care for them two weeks. At the end of that time I saw that it was going to be very risky as regards the life of some colonies so I offered to stay two weeks more if they would pay my expenses; they were glad of the chance and the principal of the school sent in the account at 75 guilders for each colony. The additional 15 on each colony will more than pay my expenses, that is to say much more than pay my hotel bills during the additional two weeks.

I think the account will be so allowed and that when I get back to Buitenzorg the money will be ready for me. After about a month in Java I have about concluded that if I should be fortunate enough to secure a few colonies of *Apis dorsata*, they will cost, in addition to what I have already paid out, a very large sum of money, and will consume much time; therefore I believe my best plan will be to return to Ceylon and go into the interior (by rail) of that Island, where, from all accounts, I feel pretty sure *Apis dorsata* is to be found in some numbers. If, however, I do not get any number there, a trip to the neighboring coast of Hindustan remains as another chance. If I had two months' time, a trip to Timor would be the thing to do, for there *Apis dorsata* surely abounds. But Timor is about 1,000 miles further east and steamers rarely touch there. I might go to Macassar, but that trip would occupy at least a month, and Celebes is a large, very spread-out Island, so that I might search a long time before getting *Apis zonata* or *dorsata*. Bandjermassin, in Borneo, is nearer, but except I could catch a trading vessel going there it is not so easy to reach as Macassar. There are many bees in some parts of Borneo, I am told by the most practical, intelligent government officers I have met here. It seems, misled by the universal statement, I have come to the very island where *Apis dorsata* is as rare as it could be and still exist as a race of bees on the island.

No one can be more anxious to see this new bee than I, and yet after nearly 4 weeks in Java I am obliged to say I know no more about it than when I first came here. That I have endured more hardships in my endeavors to find it you can see from what I have said before, and will know from the statement of the fact that I have sometimes scrambled through thick mountain forests and over sharp rocks for many successive hours, my clothes soaking wet so that I dared not rest a moment: again, an all-night coach ride over fearful roads would give me a chance to—to *keep my eyes open*, and still again it has been my lot to get caught miles from shelter in a pouring continuous rain. It is wonderful how the water falls here.

But I believe *Apis dorsata* will return with me. You know I'm not the chap to leave the matter untested when I have got thus far. Either I will get *Apis dorsata* in Ceylon or go to the main-land of India for it. I have seen two combs of *Apis dorsata*, from the Malay peninsula, and Mr. Schroeder writes me he received "bees of all sizes—worker bees as large as common queens, from Calcutta."

I have received many encouraging words from European bee-culturists, though many of them are doubtful as to the success of the undertaking. "At least we shall know," says one of them. "I am very anxious to get news from you so as to be able to repeat facts, for thus far we have had only suppositions."

I will write again soon. Thus far no letter has been received by me from you since leaving Cyprus. It is a long time since the last letter from my wife was written. Very Truly Yours,

FRANK BENTON.

Here is another letter received from Mr. Benton :

Steamship "Yangste."

MR. D. A. JONES, Dear Friend :—We are getting toward the Island of Ceylon which place we expect to reach to-morrow night or next day early. I shall stop there until the arrival of the next steamer, to put in shape and deliver to the parties ordering them the colonies of bees I left there upon my way to Java, and what is more important to me, to secure if possible a number of colonies of *Apis dorsata*. Landing in Colombo I will proceed to Kandy, in the interior, and have very great hopes of finding somewhere in the vicinity of that place the "Great East Indian Bee."

I regret exceedingly having spent so much time and money in Java, yet it could not be foreseen how it would result, and it was only after I had been there and made a thorough search of West Java that I became convinced that the bees were rarely to be found in that part. I then had but a short time to spend before leaving for Singapore, and so a journey to Timor, the only place where one is certain to find large numbers of these bees, was out of the question. I therefore went to the eastern part of Java and explored the interior forests, but with no avail. The bee that has been so often spoken of as "The Great Bee of Java," as to lead one to think it was common there, is only seen there in very rare instances, and during 5 weeks of constant search I could not get a glimpse of a single bee. I used every available means, sometimes having as many as a dozen men out searching after the bees and questioning all the natives who ever saw a tree containing one of these swarms. That these men did their best you may be certain for the one who found or learned of the first tree containing a swarm of these bees was promised, in addition to his day's wages, a bright English sovereign, quite a prize for a simple Islander. The second was to have half that sum ; moreover, they were anxious to please me for they got good pay and wanted a continuance of their employment. But it was no avail; the bees were not to be had, and after weeks of toiling through interminable forest, up mountains and over rocks, in the wildest most out-of-the-way places, I gave up the search in Java as useless.

While in Java I returned from time to time to Buitenzorg, where the colonies of Cyprian and Palestine bees which I had sold the government had been placed, and thus kept them in order. I left them a few days since in a promising condition. The introduction of the culture of bees into Java is a matter of considerable importance to the Island, since, as I am credibly informed by a dealer in wax, $800,000 worth of wax is yearly used by the 22,000,000 people living there, whose principal garment is the *saroug*, a sort of a petticoat made of three or four yards of very wide cotton cloth. In the manufacture of sarongs the wax is spread upon a portion of the surface of the cloth and the latter is then dropped in the dye; after the wax has been washed out the parts not covered with it are found to be colored. The process is repeated for each part that is to receive a distinctive color.

Some years ago the Dutch government sent out from Holland a man with 28 colonies of Cyprian and Italian bees for which a special cabin costing $100 had been built upon the deck of one of the Dutch mail steamers. During the voyage several kilogrammes of ice, a costly article in the tropics, were daily used in this bee cabin to lower the temperature. Upon arrival in Port Said it was found most of the bees were dead; the remainder were then given a few hours to fly and then sent direct to Batavia, where but 5 colonies arrived alive and these were very weak and much diseased. In a few months they were also numbered with the things that were. Thus this expensive experiment of the Dutch government was productive of nothing but experience. After about 3 years in Java, without having made any effort to secure or ascertain anything about the large native bees, *Apis dorsata*, this enterprising Dutch bee-keeper returned to his native land, to which he had rendered such a great service!

It was of course a great mistake to take bees from Holland when they might have been obtained in Italy, or Cyprus, or even in Jaffa, but 12 hours from Port Said. Then the building of this special cabin was not necessary, since, shaded with canvas and in the open air of the decks they would be quite as well off. It was not only an unnecessary expenditure they made for ice, but I believe positively injurious, for it made the bees damp and diseased. In this climate the great question is to keep things dry, for when once an article is damp it begins to mold very soon. Clothes hanging up in a room or carefully laid away in bureau drawers, completely spoil in a short time, sometimes but a few days.

Another mistake in this experiment was to take the bees direct from Port Said to Batavia. They should have gone by the way of Ceylon and there been allowed a flight. The journey from Port Said to Batavia is about 25 days, while to Ceylon it is 17 days, quite long enough in this fearfully hot climate.

It is strange indeed to see how little Europeans in this part of the world trouble themselves regarding the development of the country. Most of them once in their positions live at their ease, letting things move on as slowly as they may. In general they drink more, smoke more, eat more, lounge about more, read less, study less, think less and work less than white people in any other part of the world I have visited. You can readily understand that I could get not only no practical aid but absolutely no information that I could make use of, indeed, it was with the greatest difficulty that I could ascertain anything about those parts of the country that I did not visit.

A very natural inquiry for one in America to make is, "but why did you not go to Timor where it is certain these bees are plentiful?" First, as before indicated, I had every reason to suppose I would secure the bees in Java, then I brought with me the Cyprian and Palestine bees for the Dutch government in Java. Moreover, it would be necessary to visit Java in order to get a steamer for Timor. The latter can only be obtained at rare intervals and the time one can get a return steamer is not certain, besides all this it is a long journey from Java, much longer, I do not doubt, than people naturally think it to be. From Batavia to Timor is 1,500 miles, or this journey is quite as long a one as that from New York to the West Indies, but it is not completed as quickly as the latter, because the steamers do not go directly to Timor, but visit various islands and, too, they are very slow boats.

From Batavia in Java to Macassar in Celebes is about 1,000 miles. Now, considering the time I was able to get started from Cyprus and the time it takes to go and come, it was out of the question to go to these islands unless I gave up the idea of getting back to Cyprus in time to accomplish anything there this year. I am late enough now, but it was the best I could do, and now if I would not go back without taking any bees I must stay 2 weeks in Ceylon.

These bees are to be had in this part of the world, but you must bear in mind that in this particular the country is unexplored, no bee-keeper ever having examined it before, and it takes some time to find them. Then it is a long way between the countries and islands of which we speak in a breath as though they were near neighbors. You know yourself, through experience, what a long, long journey it seemed to cross the Atlantic Ocean, yet when I shall have arrived in Cyprus I will have traveled on this journey a distance equal to 6 trips across the Atlantic. Thus having left Cyprus late, and not knowing positively the very best course to pursue, it having been an impossibility to ascertain anything about this subject before coming to the Indies, the time has been too short to accomplish what I wished to do. The only way I see to get a large number of these bees is to come here and be prepared to remain for some time, then go to the place where they are most abundant and rent a house to live in—hotels and traveling about are expensive here, especially for foreigners.

One of the most troublesome things which first presented itself was the finding of an interpreter. Only natives connected with the government learn any foreign languages and even few of them do. I could see no other way to get along, so I bought a book and commenced to learn the Malay language, meanwhile, the Director of the Department of Public Instruction gave me as interpreter a young Malay who could speak a little Dutch. It seemed preposterous to think of one's commencing to learn a language in the hope of speaking it in 10 days or so well enough to make transactions with people who knew no other tongue. But the Malay tongue is so very easy, so exceedingly simple, that in 2 weeks I could get along very well, and now, after 6 weeks, I can ask all about the bees. I derived much aid in getting along with my various journeyings through my acquaintance with French, German, Dutch and with the Malay I learned. In fact, with Fnglish alone one would get along but poorly in those lands outside of British India, while even in British territory, French and the native language are of very great importance to the traveler.

Mr. Schroder, Mr. Cori, Mr. Filbert and many other European bee-culturists, have written me encouraging letters, and all speak in highest terms of the work, saying also that they await with intense interest the result of my journey, news of which they all wish me to give them as soon as possible, direct from Java.

Earnestly hoping to give more encouraging news soon, I remain as ever.

Yours Truly, FRANK BENTON.

For the American Bee Journal.

Foul Brood.

P. B. P.

The former article which I wrote to the BEE JOURNAL was intended to induce apiarists to investigate the disease of foul brood more, and to leave nothing unturned to set it in as clear light as possible. I am of the opinion that the subject is one that has not been sufficiently clearly investigated, and what has arisen from a want of a proper understanding of this important subject has been misunderstood for a hereditary disease in bees.

The colony which I referred to in my former article was a very strong one, a large quantity of bees clustered on the outside of the box for some days previous to swarming, there were also a number of drones in the colony, and the combs were filled with larvæ unsealed. When they swarmed the bees nearly all left the box (hundreds of drones were left), consequently the young bees were left without food, hence they died and I found them in the state described in my former article. I allowed the box to remain in its place to see what would be the result, which was as I before stated.

Another source of the disease is explained by H. L. Jeffrey; this is certainly the effect of want of proper judgment.

As I believe much of this disease is caused by improper treatment in the winter and spring I will now explain how I treat mine, which has been attended with good success for the last 9 years.

I winter mine in a house, in the walls of which there is 9 inches of sawdust, and 12 inches over the ceiling; there is a ventilator in the floor and another in the ceiling, both valves of which I can open and shut at pleasure. I have a door outside and another inside which fits close; the house is kept quite dark; in it I have shelves on which I place the bees. I endeavor to keep the temperature from 1° to 7° above freezing point, but in the spring when it is likely to rise above that temperature before I remove them from the house, I place a large tub in it in which I put ice to prevent too much warmth, so that the queen will not deposit more eggs in the cells than the bees will cover. When I take them out in the spring if the nights are cold I take the weak colonies into the house and I close the entrance of the others, leaving a small aparture for air so that the bees can ventilate themselves, and in the morning I open them to suit the strength of the hive; in this way morning and evening having attended to them I believe I have prevented foul brood in the spring.

In my winter bee-house I have not lost 6 colonies for 9 years, and by the above care and attention I find I have very little spring dwindling. I have wintered some outside and I do not remember losing one, but it would make this article too long to explain it here.

When I find a colony have nearly all left in swarming and a large quantity of larvæ is left in the combs, I immediately artificially swarm one into the box, which effectually prevents foul brood.

There may be other causes for the bees leaving their young to perish and hence causing foul brood, which we have yet to learn.

For the American Bee Journal.

Foul Brood and Feeding Rye Flour.

H. L. JEFFREY.

When I wrote the article on foul brood published in the BEE JOURNAL of March 16th, it was not my own situation that I described, but the result of close observations in an apiary a few miles from me, and in which I have worked a great many days since 1873, and it is only one case out of quite a number that I can give the details of, if it was necessary.

Another cause that has shown quite strong evidence is wet and moldy bottom boards, and I find that there is a difference in wood about the effect—some holding moisture and molding more than others, and this dampness also causes dysentery and spring dwindling to a great extent; at least a great many experiments that I have tried during the past 4 years prove it sufficiently to establish a rule to go by. First, if the bees are kept perfectly dry, they will not be apt to be troubled with the black mold. This mold emits the same kind of gas or poisonous effluvia that is found in wells, deep holes, and in some cellars. This gas is death to all animal life in a greater or less degree. This is also one trouble that is caused by the hives standing on the ground in cold, damp places, and in such I have found spring dwindling, foul brood, dysentery, and black mold more than in any other locality that I have found. I prefer a low stand to all others, yet I have taken particular notice of the great difference, other things being equal, between colonies kept where the soil was heavy, black, wet ground. Those kept on a bench 2 feet high would be as much as 2 weeks ahead of those on the ground, and the colonies on the ground would dwindle twice as bad as those standing on a high bench ; on the other hand, the colonies standing up would fly out worse and be lost on the snow during the sunny days in winter, and be lost in the early spring blustry days. On the other side of the question, where the soil was gravelly and of a leachy nature, there was just as much difference in the flying propensities, but those on the ground would come on as fast, and in as good season as those that stood on a bench, consuming less honey and wasting less by snow or wind. Now, the two locations need reverse treatment in the spring and fall, while in summer they can be the same. I have noticed the above points closely for about 5 years, taking notes of circumstances and comparing dates and results.

There are two things that I have noticed regarding wintering—dysentery and spring dwindling—and find they are alike, in all cases and situations, attributable to the same cause, though situations will cause some difference in time, but the cause and results are the same. 1st. Colonies on 3 or 4 year-old brood combs, as a rule, are the safest for wintering, the paper making them better absorbents of moisture from the bees, and the warmth of the bees will dry them out. 2d. Bees with a quantity of bee-bread invariably have the dysentery when long confined, especially in damp weather when the bee-bread sours and ferments some; it is then fed to the larvæ, and some foul brood is the result. But few cells may show at first, but if the bees have a good supply of combs, the disease will make progress fast enough. On the other hand. if they are given no more combs than they can cover, there is not so much danger of trouble. Now, to keep out of the trouble, box all the honey you can or extract it, feed sugar syrup, and be sure that there is no pollen in the combs after Dec. 1st. For the latitude of Connecticut or north: Give the colonies as old combs as you have; try to contract them to 5 Langstroth frames or their equal, that is for ordinary colonies; pack them well at the sides, then lay several strips of lath across the frames to reach from one division board to the other. On these laths put a piece of pasteboard or paper box that will reach two-thirds the length of the top bars, lay on your quilt, and put on the chaff cushion and cap, and be very sure to put a chaff cushion under the bottom board everytime. If you do not like this idea, just knock out the under-pinning from your house, and experience how cold and disagreeable it is, or sleep on the slats of your bedstead, piling the bed-clothes on the top and sides of you. It is the same principle exactly. Then let them alone till about the 1st of March, and after they have a good flight look them over. If they can spare a comb take it away, and insert a division board. Before closing them up, rub at least half a gill of good, sweet rye flour into one of the center combs—a gill will not hurt a strong colony—then tuck them up and shut up the hive. The queen will begin to lay immediately, and in as many cells as the bees can cover.

Let the hive alone till the 1st of April, then look it over and you will find a nice lot of young bees. If the bees are not gathering pollen give them some more rye flour, and your colonies will be strong and healthy. The result generally is early swarms or a good surplus. I have tried feeding sugar syrup in the fall and rubbing rye flour in the combs in March and April, with some of my colonies for the past four years, and every time it has proved a success. This year they are the only ones that are proof against the scourge of this ever-to-be-remembered disastrous winter.

Woodbury, Conn., April 2, 1881.

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For the American Bee Journal.

Using Separators for Surplus Honey.

GREINER BROS.

It appears from Mr. Heddon's reply in the Weekly of April 6th, that he misunderstands the meaning of our article on "Use of Separators for Surplus Honey." We read the BEE JOURNAL with the expectation of gathering information, and the few articles we have contributed to its columns we hoped might benefit some of its readers. We did not disagree with Mr. Heddon for the sake of being on the contrary side, but our argument was sincere, and based on actual observation. The fact that Mr. Heddon claims "they sometimes kindly attach the sides of the combs to them" to be an argument against wooden separators, is sufficient proof to us that he does not speak from experience, but merely to sustain his argument.

We are not aware that we declared against tin. as intimated by Mr. Heddon; we only gave the reasons of our individual preference for wood. That Mr. Heddon considers himself a "Galileo" is undoubtedly true, but the comparison does not seem to have any bearing on the subject. The BEE JOURNAL, as a progressive apiarian periodical, stands too high and is too valuable, in our estimation, to be used as a debating medium. We want facts and actual observation. If we should differ in our views, let us discuss such questions in a friendly way for our mutual benefit.

Naples, N. Y., April 11, 1881.

* * *

For the American Bee Journal.

Bee Diseases, Spring Dwindling, etc.

S. S. BUTLER.

G. M. Doolittle says to Novice: "Can't you manage to tell us why bees did not spring dwindle prior to 1870?" Further along he says: "I can't see through it all," and Novice says: "I can't either."—Page 68, *Gleanings* for Feb., 1881. With a great deal of hesitation, after the veterans Doolittle and Novice give it up, I will try and tell what seems to me to be the reason; it is simply this: the bee has lost so much vim or vitality that it is not able to stand the cold as it used to. I will try to prove my position. I was in Eastern Pennsylvania in the fall of 1872, and knew two bee-keepers with nearly 100 colonies each in common hives, who kept them in the old-fashioned way, by brimstoning the poorest, keeping the best, and so keeping up the tone of the colonies, so that when the first disastrous winter came their bees were not affected, because there was not a pseudo scientific bee-keeper near enough to them to lower the tone of their bees by dividing and thus rearing poor queens, which would rear poor drones, and thus lower the vitality of his neighbor's bees.

Mr. Doolittle gives his own case as one where he had to stop rearing queens by the quantity, and pay attention to quality, before he could get honey returns. I have never been able to get anything of account from my bees until I got the best stock I could procure and reared my bees by natural swarming. Hear Henry Alley on this subject, although he does not seem to take the same view of it that I do. On page 42, BEE JOURNAL of Feb. 9, 1881, he says: "I have found farmers who have kept bees in the same place upwards of 40 years without indications of deterioration." I think they will always be found far enough away from frame-hive bee-keepers, so that drones from the divided bees have not mixed with their bees.

If our friends will look around in the cold Northern States, they will find old-fashioned bee-keepers, where away from new-fashioned ones far enough to keep the bees from mixing, also away from sorghum and cider mills, and do not get grape, peach or apple juice, or honeydew in quantities, are still wintering their bees well. Bees are no better by being kept in the old-fashioned than in a frame hive, if allowed to swarm in the frame hive; but it is impossible for an old-fashioned bee-keeper to keep his stock good, if others near him divide theirs and rear forced queens. "Five hundred dollars would not hire me to breed all my stock from an imported mother and let my present stock go down."—Doolittle, page 21, Jan. number of *Gleanings*. Why are imported Italians getting below our best American yellow bees? For the reason that all the Italian exporters are rearing their queens by the forcing process, for quantity and not for quality. I would warrant very fine Italians from a locality in Italy where they had been allowed to always swarm naturally.

How has it been with the great Dr. Dzierzon, who has never imported but the one colony of Italians, and stocked his large apiaries, sold quantities of queens, and still has good bees after a quarter of a century? Dzierzon's experiment is a very strong argument in favor of in-and-in breeding, as are also the qualities of the Cyprian and Palestine bees, where they have bred in-and-in for ages. Dzierzon's success is because he is a real scientific apiarist.

What say the Hanoverians (bottom of third column, page 30, BEE JOURNAL of Jan. 26, 1881)? They think they rear a finer bee by destroying ⅓ of their bees, thus renewing all their combs every three years, and avoiding foul brood.

I would like to inquire of Mr. Jones or Mr. Benton if they heard of foul brood in either Cyprus or Palestine. My opinion would be that a colony of either Cyprians or Palestine bees would not take or catch foul brood, if fed with foul broody honey, because they are naturally so vigorous. To try the experiment, I should want my queen reared naturally, from a locality where they were all reared the same way. I am glad to see that a few of our best apiarists are giving the necessary attention to their bees, so that others can get queens that will be an honor to the breeder.

I am getting quite well pleased with the change in the BEE JOURNAL; I had been used to the Monthly so long that I at first disliked the change; but now would be very much opposed to having it relapse into a Monthly again. I have just taken out of the hives about 150 lbs. of honey, ⅓ of which was new, showing the bees to be very forward for the time of year.

Los Gatos, Cal., March 3, 1881.

* * *

For the American Bee Journal.

The Bee and Grape Controversy.

L. JAMES.

Several years ago this same charge was brought against our bees by the vineyardists, and I supposed the evidence adduced then by the apiarists had proven satisfactory. But another dry fall has been attended with a heavy loss of grapes, and the bees have again been arraigned as the culprits. If bees were not armed with such sharp weapons as to be held in dread by many persons not accustomed to handling them there would be but little difficulty in satisfying our neighbors that our bees are in reality their friends, and that the charges brought against them, though appearing so to a casual observer, is an erroneous conclusion drawn from imperfect investigation. I am interested in both branches, and have been for over 20 years, and although losing grapes in the same way as my brother vinedyardist I say to him, that for many years I have settled this matter to my own satisfaction, and in as few words as possible inform him how he can reach the positive fact that bees do not injure his grapes if he will spare one hour or less from his pressing duties and learn one truth that is worth to him more than a dozen "I think so's."

The first dry fall that causes the bees to gather in countless numbers on your grapes, call in to your assistance some person accustomed to handling bees and not afraid of being stung (as I presume your are), select a cluster of grapes that is so full of bees that you cannot see a grape, then request him to drive them off by blowing his breath strongly upon them and at the same time whipping them with a whisp of soft grass. Now remove every imperfect or already injured berry. Do this effectually. After having done so step to one side and the cluster will in all probability be hid from sight by them again. Sit quietly by and rest yourself for a while and you will observe they will begin to leave, and when all have gone examine and you will find the very end of the stems from which you plucked the damaged fruit sucked dry, and every sound berry will be found just as you left it and the same bees as busy on some other cluster, doing a better business.

This simple test, if properly conducted, will satisfy you that you were in error. What would you think if one of your city cousins should come running from your sheep pasture and cry out, "John! John! the buzzards are eating up your sheep!" You would no doubt laugh and say, "That's not so, George." The probability is that your blunt contradiction to his conviction of a fact would probably cause him to retaliate by saying, "Well John, they are your sheep, and if you see proper to let the buzzards destroy them in this way, all right. But I tell you it is a fact for I saw them myself with my own eyes tearing your sheep to pieces and eating them, too." I presume such evidence, coming from an honest but decided person, would have but little weight with you. The bees, just like the buzzards, are nature's scavengers in this instance, nothing more, nothing less, and utilize the fragments.

Who are the real depredators? With us, first on the list stands the grass-hopper, small in size, great in numbers (in certain seasons) and armed with terrible jaws for just such work. In my apple orchard last fall the apples were badly cut in holes by them and crickets. Grass-hoppers will either eat or cut almost everything on which they crawl or hop. My orchards are in grass, and some seasons the hoppers very numerous. At such times, if clothing is hung up in the orchard it is liable to be damaged by them. Crickets, and other nocturnal insects depredate to a greater or less extent also. The robin and catbird are both on hand in grape gathering also, but as they render valuable assistance to the horticulturist in obtaining his crop of fruit, and as we toil among our vines their outbursts of mimicry or song amuse or elevate our thoughts and we feel disposed to grant them a portion of the crop. The robin, good fellow as he is, should be welcomed to his fill of concords, as he plucks no more than he eats. But when you see the catbird coming, shoot him if you can, and summon all your Christian graces to govern that unruly member—for when grapes are ripe he becomes the meanest bird that wears feathers. He knows just where the best grapes grow, and a second or third rate one he has no use for while a No. 1 is to be had; very unlike the robin, he does not pull off the berry and swallow it whole, but takes a nip out of one and then another in his restless way and by the time he has satisfied his appetite he has ruined enough grapes to furnish a host of bees with employment in rescuing the pulp of these damaged berries, until he makes another call. These damaged berries are of no value to the vineyardist, then why object to let this right royal insect gather up the fragments from the catbird's feast, that would be lost?

It is well known to persons growing grapes that when the fruit is fully ripe that a soaking rain and a warm atmosphere may cause many of the berries to burst, from the fact that it has ceased to grow and is incapable of sustaining the internal pressure of the extra incoming flood of sap.

Most bee-men are aware that bees are able to gnaw such article as paste-board, sacking, and even wood, yet I am satisfied they are unable to cut open the grape. My belief is based upon the following premises: Paste-board, textile fabrics and wood, however smooth, have sufficient elevations on the surface for the jaws of the bee to get a hold, but the skin of the grape is very smooth, somewhat tough and elastic or yielding in its character as to afford no hold to be had, and I have no doubt a practical microscopist could give an illustrated drawing of the mouth of the bee, showing its inability of opening the berry. Again, there is one thing certain, the intense excitement and energy displayed by bees when engaged in this business would not cease when the already open ones were consumed if they had the power to cut through so thin a covering as stands between them and the so much coveted interior.

Atlanta, Ill., April 11, 1881.

[So far, the preponderance of evidence tends to exonerate the bees from all the charges which have been brought against them; this is the more gratifying, as the majority of it comes from those who are themselves engaged. more or less, in grape culture.—ED.]

THE AMERICAN BEE JOURNAL

THOMAS C. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., MAY 11, 1881.

Food Adulterations from a Hygienic Standpoint.

In March last, Dr. W. S. Haines, professor of chemistry in Rush Medical College, startled the scientific portion of community with an elaborate lecture eulogizing the virtues of glucose, and indirectly defending its universal manufacture and sale as an adulterant. Of course, he scientifically dresses up the stereotyped and popular arguments that *grape sugar*, as found in the grapes, and glucose made from corn with sulphuric acid, are substantially one and the same, and similar to that made from potatoes and bread in the laboratory of the human stomach. He might have added, also, that chemically speaking, the same product could be realized from a great majority of the garbage to be found in the gutters of our popular cities, but for fear of adding to the prejudice already existing, we suppose, he kindly omitted giving this information. Evidently, the following extract explains the reason for the waste of his valuable time—first, to remove the prejudice from the public mind regarding the use of glucose; second, to beguile the farming community from their opposition to swindling:

> I believe it is no exaggeration to say, at the present moment, at least two-thirds of the reading public look upon glucose as a dangerous substance, possessed of highly deleterious or even poisonous properties, and I question whether 1 housewife in 20 could be found who would accept a pound of this sugar as a present, if she were obliged to promise to use it in the household cooking. A recent letter in one of the daily papers expresses, I believe, the average public ignorance in regard to glucose, when it says: "The persons who have been made sick, and are injured for life by its use, are already a mighty host....No wise man wants glucose for food." Another equally misinformed writer says: "....Grape sugar is not only injurious to health, according to chemists, but it is a plain and palpable fraud, because it is not sweet....It is of no possible use except for adulteration."
>
> If, as I have said before, this mistake was like most of the other popular fallacies, a harmless error, we might afford to let it travel, confident that it would do no serious harm. But since it threatens to affect a branch of industry which promises, if it be encouraged, to redound to the advantage of every man who owns a farm or who plants an acre of corn, I believe it is high time to discuss the subject, and remove the prejudices against this truly valuable product of chemical skill.

The following paragraph contains the gist of his lecture as to the method of manufacture:

> By mechanical and chemical means the starch is first extracted from the corn and then is boiled with very dilute sulphuric acid, when it rapidly passes into solution and becomes changed into sugar. The chemical action that takes place during this transformation is highly interesting. Both starch and glucose consist of exactly the same elements, carbon, hydrogen, and oxygen, united, however, in slightly different proportions—the sugar containing just enough more of the oxygen and hydrogen to equal the quantity of these elements present in a molecule of water.

So improbable and highly discolored was the whole lecture, that many of the better informed and more thoughtful of the readers of our morning papers were not slow to believe the Doctor had other than scientific motives for giving utterance to such a lecture, and he found it necessary in a supplemented letter to disclaim any selfish purpose in preparing it.

A few days after the lecture above referred to, an Iowa farmer sent to one of the daily papers a can of glucose syrup purchased in Davenport, and stated "he and his family had been using the syrup for some time just as they had the ordinary cane syrups, and liked it exceedingly; but, after steady use of it for some time, he discovered that the digestion of every member of the family was ruined, and that something or other, presumably the glucose, because that was comparatively a new article of diet with them, had seriously disagreed with their stomachs." Dr. T. D. Williams, quite eminent as an analytical chemist, after careful examination, made the following report and explanation, to which we give considerable space:

> I find the contents of the can to be a solution of starch sugar (grape sugar), and not uncrystallizable starch sugar (glucose) or starch syrup, as alleged.
>
> The reaction is acid. The specific gravity is 1,343, indicating the presence of 75.5 per cent. of starch sugar.
>
> The substance is unusually sweet; a fact showing that the saccharine properties have not been destroyed either by heat or by the undue presence of lime (combined with heat), which fact is corroborated by the presence also of free sulphuric acid. I also find traces of sulphate of iron (copperas).
>
> The microscope reveals innumerable delicate crystalline tufts, and larger warty bodies of starch sugar, thus in a manner authenticating the chemical examination made. It also shows the presence of sulphate of lime and a vast quantity of vegetable tissue (cellulose).
>
> I believe in calling a thing by its proper name. Artificially, no such substances as grape sugar and glucose were ever made. Now, while this may appear to you to be an ultra expression, I am willing to be convinced of my mistake, if I am, indeed, making one, for, as a matter of fact, the terms grape sugar and glucose in their original sense refer to the natural products alone, and not to any artificial ones. Dalton very properly says: "The cane and grape sugars are held in solution in the juice of the plants from which they derive their names." Again, Dunglison defines glucose as being a variety of sugar (uncrystallizable) that occurs naturally in many vegetable juices and in honey.
>
> Indeed, these terms were subsequently given to the artificial products, and, in my opinion, erroneously so, because of their saccharine properties and their chemical combinations, which, in both instances, are insomeric with the natural product. I say the names are erroneously given; first, because they are not natural products; and, second, not being those produced by nature, man has no right to presume upon their possible physiological effect. Assuming that such effect is the same, a thing recently done, because of an alleged family patronymic.
>
> Dr. Williams said he believed that the frequent reiteration of the statement that the natural product is wholesome, a truth made use of conjointly with the word glucose, for the purpose of extending the sales of the artificial product. The misrepresentation so constantly persisted in is a question of fact, as is also its avowed purpose. The glucose manufacturers and their devotees, in some few instances ignorantly, but oftener intelligently, are engaged in misrepresenting the facts, as above stated, and this, too, with but one object in view—namely: that they may uninterruptedly perpetrate fraud. I want you to understand that these men are not so greatly interested in the public health, notwithstanding their clamor, as they are in the money in the public pockets. In other words, that I believe their personal proclivities tend more directly towards mercenery motives than they do towards sanitary benefits.

It is unnecessary to assure the intelligent reader, that Prof. Williams' opinions regarding glucose are in accord with those of the most celebrated chemists of Europe and America, and that it is anomalous to find a scientist of any respectability who agrees with *Prof.* Haines.

Bee-keepers are thoroughly disgusted with the villainous stuff, and the following will find a ready echo in every honest heart: "I have never used an ounce of glucose, and would quit the business if I had to use it. I have instructed my merchant to give away my honey if any trace of glucose can be found in it."

The following communication bearing upon the use of glucose in the apiary, will be read with interest by the thousands of admirers of its writer. The earnest language employed by the Rev. L. L. Langstroth, its autor, and his forcible manner of presenting facts, cannot fail to carry conviction that the matter has received the fullest consideration:

> Much has been written in favor of and against the value of grape sugar as a winter bee feed. Some years ago, while not denying that it might be safely used in winter, permitting cleansing flights, I expressed the opinion that it might prove very injurious when the bees were confined for a long time to the hive. I could then speak only theoretically, now I can give the most decided testimony against it from actual observation of its fatal results, in an apiary only a few rods from my house. Mr. David McCord prepared 65 colonies for wintering in the open air. Being both painstaking and skillful, he had never before in wintering lost a single colony. Thirty-six of these colonies were fed in the fall upon a syrup made of ⅓ coffee A sugar and ⅔ grape sugar; the others had no grape sugar. Every colony but one which had grape sugar died of dysentery. Two of the others starved, while the rest came through in better than average condition. His brother, living close to him, wintered 23 colonies in the open air; one starved and the average strength of the others was unusually good. He used no grape sugar in any form. They died with dysentery, between combs well supplied with the mixture above referred to.
>
> Early in April, even after they had several cleansing flights, the only one of the colonies fed on grape sugar that had survived, was found to be suffering so badly from dysentery that not a bee could fly. An empty hive was warmed by laying it upside down upon a stove; some combs of good honey were also warmed and the bees brushed into the hive from their filthy combs and carried into a warm room. Those which could not crawl upon the combs were given a warm bath, and when dried, returned to the others. Although quite weak in numbers they are now in good heart. One night more on their grape sugar combs would probably have killed them.
>
> This experiment of Mr. McCord's has suggested to me the idea that when bees are suffering from dysentery and no flight can be given them, or they are too weak to fly, a warm bath, even carried so far as to make them insensible, might so relieve them, both externally and internally, as to restore them to health. They can easily be warmed and dried by confining them to a seive. The fearful loss sustained by so many of our best bee-keepers, both in special winter depositories and in the open air, seem to give renewed emphasis to the importance of providing some feasible way by which the bees can be given a purifying flight, without any reference to the external temperature.
>
> If 1 lb. of honey or cane sugar has over twice the sweetening power of a lb. of grape sugar, it is self-evident that to sustain life bees must consume a much larger quantity of the latter than of the former, and that there must be a much greater amount of waste (feces) from the grape sugar. Is it not, therefore, a demonstrable certainty that there is much risk run in using it for winter supplies, where the cold may for 4 or 5 months confine bees to their hives?
>
> In what I have thus far said, I do not assume that grape sugar cannot be manufactured as pure as that found in the raisin. Mr. Frank R. Cheshire, who is high authority, says, in the *London Journal of Horticulture*, April 14, 1881, page 300, that "glucose can be made from old rags, old paper (second-hand pawn tickets having sometimes been employed thus), and indeed any form of cellulose or starch, Indian corn in America usually being the source, and by the action of sulphuric acid can be converted into a sugar that no chemistry, no palate can distinguish from that taken from the most dainty bunch of grapes....It is equal to grape sugar; whatever its origin, and as an article of diet it has its value; but all this still leaves its use as an adulterant most disgraceful, and all should join hands in fearlessly doing our level best to get the right ticket put upon any man (and his wares) who descends to a practice which, if it does not lower him, wrongs all those who are striving to do honestly. Glucose, although chemically like a portion of honey, is altogether wanting in that which makes honey what it is. Its aroma, the delicate distillment from a thousand flowers inimitable and incommunicable alike, is not there, and he who gives the one for the other is as truly criminal as he who tenders knowingly a base coin."
>
> Mr. A. I. Root, in *Gleanings* for April, page 203, says: "The American Grape Sugar Co., of Buffalo, N. Y., have at length produced a sugar entirely free from the slight bitter taste which has heretofore characterized even the best refined grape sugars. It is a pure product of Indian corn, and is as pure and simple a sweet as the best grades of maple sugar."
>
> Now, the expert chemist may perhaps make a perfectly pure article of grape sugar, but this is a very different thing from his being able to manufacture the same on a large scale, and for commercial purposes, so that it can be profitably sold for its real sweetning value. Our friend Root, in his honest enthusiasm, says: "Just taste of it yourself (the Buffalo article) if you are incredulous. We will mail you a sample for 5 cents, which I think will settle the discussion." We have tasted it, and yet are not convinced. A very nice article it is as compared with that made a few years ago, but, if our taste is not at fault, the bitterness is not yet wholly eliminated. We have tested it side by side with a pure article of maple sugar, and we should never think of comparing the delicate taste of the latter to the mockish taste of the former. We are far from setting up our own taste as an infallible criterion, and we therefore call upon Prof. Kedzie, or other analytical chemists, to take hold of the matter and give us the bottom facts, without fear or favor.
>
> Suppose that their verdict is that the Buffalo article is a perfectly pure grape sugar—what then? Considering its low sweetening power, at present prices can there be any advantage in using it as a bee-feed which will justify the risks to which I have referred? Are not both grape sugar and glucose, at present, used on so enormous a scale, almost entirely for adulterating the commercial sweets? Is it not a fact sworn to by one of the former proprietors of the Buffalo Co., that on a capital of $400,000 they realized in one year a profit of $1,000,000? Did not this profit come by furnishing to unscrupulous men the facilities for adulterating the sweets in common use by the people? Tweed-like, the reply to such questions may be for a little longer, "what are you going to do about it?"—but we hope only for a little longer.
>
> What interest has one out of a thousand of our citizens in having the dollar paid out for sweets go so largely to enrich the pockets of those who furnish

no equivalent for the money they receive, even if they do not sell an unwholesome article in their adulterated mixtures? The American peeple may be somewhat slow in reaching results, but how often have we found that they effectually reach them at last? Let laws be made compelling those who manufacture grape sugar and glucose to sell their products for what they are, and forbidding the use of them in adulterating our commercial sweets, and how long will it be possible for manufacturers or dealers to make such exorbitant profits out of a deluded public? Then if their products are wholesome and have a substantial value, prices will find their proper level, and the new sweets may be of benefit to the public.

L. L. Langstroth.

Oxford, O., April, 1881.

Oleomargarine and lard-butter are rapidly working their own destruction. While the best medical authorities are attributing the rapid increase of Bright's disease, diabetes, and other complaints incident to the urinary organs to the excessive use of glucose, bogus butter is now charged with giving rise to indigestion, cramps, "winter cholera," and even trichinæ. The recent legislative investigation in New York has brought to light some interesting statistics, and verified a prediction we made several months ago, that while it was not only a fraud perpetrated upon the unconscious *consumer*, it was an injustice to manufacturers of genuine butter and cheese, and would bring their goods into disrepute. We collate the following from the reports of the investigation:

> The direct injury to the dairy interests of the country was put at $50,000,000 to $75,000,000 per year. Francis D. Moulton showed that last year 25,000,000 lbs. of oleomargarine and 28,000,000 lbs. of butter were exported from the United States. The committee visited the oleo-grease-butter factories without warning, and found them dirty and offensive. *Consumption is being greatly curtailed by the fear of oleomargarine and lard butter, and the trade in good butter is much injured.*
>
> C. A. Butler testified that some manufacturers made oleomargarine from the fat of offensive meat, and extracted it at a temperature of 150°, which was nearly 100° below the temperature necessary to destroy animal life in fat. He had little faith in the legislative measures to prevent the sale of an adulterated article for genuine butter, but thought a small license fee and a penalty of $500 for each offense might do something toward suppressing the adulterations. He would compel grocers who dealt in bogus articles to display the sign, "Adulterated butter and cheese sold here."
>
> Walter Carr testified that an immense amount of lardine or lard butter was disposed of in the New York markets. Not one-hundreth per cent. of the bogus articles manufactured is sold for what it is, and grocers sell it at an enormous profit for the reason that if they took only a fair profit, customers would suspect the character of the article sold them for butter. Customers, if they knew what they were getting, would not buy it.
>
> H. K. Thurber, of the firm of H. K. & F. B. Thurber & Co., testified that he is now manufacturing about 2,500 tubs of oleomargarine weekly. Last year he exported nearly one-half of his manufacture, but this year only 7 per cent. He branded all his goods as required by law, but was aware that some retail dealers removed this mark when they had the oleomargarine in their possession.

Of course, there are some persons who do not hesitate to declare that oleomargarine and lardine are as wholesome and desirable as good butter, and preferable to poor butter; yet they acknowledge that it is sold, if at all, under any name but the right one. The fact that glucose and grease-butter have to be sold under fictitious names, is argument conclusive that they should be retailed under their right names; the same is applicable to all food and medicinal adulterations. If a customer asks a grocer for sugar or honey, he should have it, and not a decoction of sulphuric acid and corn-juice; if he buys butter he should have it, and not wagon-grease at butter prices.

Viewed from a moral standpoint, the whole system of food adulterations and their imposition upon the public is wrong, radically wrong. But if chemical and medical testimony is entitled to any weight, then the moral wrong is transformed into a serious crime. Instead of feeding our families with wholesome, nutritious food, we are daily administering insidious poisons which, though not merciful enough to cause speedy death, is quite as certain in accomplishing final destruction. What does it matter whether days, months or years be consumed, if under the guise of legitimate food a nation or race of people may become contaminated, their duration of life shortened, temporary ailments become chronic, and activity and intelligence degenerate into effeminacy and imbecility, does it relieve the government of its duty in the matter? Is it not imperative upon Congress to protect *the people* from national calamities? Can Congress ignore the universal demand for protection from imposition, when it has been convincingly demonstrated, time and again, that as a sanitary measure it is absolutely necessary? State Legislatures have nobly attempted a partial reformation, and have ignobly failed. Food adulteration is a National evil, and nothing short of a National law can regulate it. If any imitation is equal in point of excellence to the genuine article, then its manufacturer or retailer need not fear honest competition under its proper name; but if it is inferior, then the genuine article should be protected in its superiority, and the purchaser be protected against imposition.

Correction.—On page 139, in Mr. Boardman's article, 15th line from the top, the word pushed should be *perished*; 36th line, the word feeding should be *fussing*. These errors occurred through the oversight of the printer.

☞ We attended the Central Michigan Convention on the 5th. inst. There were about 100 members present—some 8 or 10 being ladies. The Rev. J. W. Ashworth presided and Mr. Geo. L. Perry was secretary, and both were re-elected for tha coming year. Mr. Perry worked faithfully to get up a good meeting, and must have been flattered at his success in that direction. We enjoyed a short but very pleasant visit with Prof. A. J. Cook, well known throughout the apicultural world as a scientific and thorough bee-master. A report of this Convention may be expected in our next issue. The *Chicago Times* of Friday had the following special telegram:

> Lansing, Mich., May 5.—The Central Michigan Bee-Keepers' association was in session here to-day. Mr. T. G. Newman, editor of the Bee Journal, of Chicago, delivered an excellent address, which caused much enthusiasm. Prof. A. J. Cook, of the Agricultural Collage, reviewed the subject of wintering bees and the causes of disaster. The losses of bees during the past winter by those present amount to 55 per cent.

AMONG OUR EXCHANGES.

LONDON JOURNAL OF HORT.

Apis Dorsata.—Mr. Alfred Neighbour has translated from the *Bienen-Zeitung*, a letter from Hern C. J. H. Gravenhorst, on the introduction into Germany of this large bee of Java. Mr. Gravenhorst quotes from a letter received from Mr. Benton concerning his visit to Java to obtain these bees, and also says that he is in correspondence with Dr. Grabowsky, a young savant of Prussia, who is going to Borneo to collect insects, plants, etc. The editors of the *Beinen-Zietung* append the following comments, which will be read with interest:

> Mr. Vogel received some very special information about this species of bees direct from India a few years ago, and in his opinion the introduction of the species (not race) would be of great scientific interest, as its hybrid offspring especially would afford bee-keepers some very valuable information. To acclimatize this bee in Germany will be impossible, as coming from the tropics it will not be able to live through our northern winter. This was our experience with *Apis fasciata*, which dies in the hive when the temperature of the air outside shows from 3° to 5° R. frost, though the walls of the hive may be thick and warm. Nevertheless, in the interest of science we recommend the importation of *Apis dorsata*, and Mr. Vogel will announce in due course how to make it safely and without difficulty live through the winter.
>
> There can be no question of any practical importance attending the introduction of *Apis dorsata* into Germany, but it might be possible to acclimatize it in the Southern States ot the United States of North America.

GLEANINGS.

☞ Mr. C. E. Glazier says: "He has lost 70 out of 88 colonies with prospect of losing still more—50 "spring dwindled."

☞ Novice says: "I think you are right, friend N., in deciding that good cellars are almost the only sure winter repository in a winter like the past."

☞ Mr. J. H. Townley, the original chaff-hive man, is disgusted with them, and offers to sell his "38 chaff-packed wintering hives at a price much below their actual cost."

☞ Mr. James Heddon says: "Out of 212 colonies, nearly ½ are dead and worthless; about ½ were packed with chaff, and ½ with sawdust, and shavings above. The loss is greater among those packed in chaff, though they being in another apiary, it is no test of packing shat we can be sure of."

Save the Empty Combs.—"Do not let your empty combs go to waste. If they are nice ones, do not try them up for wax, either. Look at them often, fumigate them if the worms get started on them, and save them for another year, if you do not need them all this. I have often saved them over, without a particle of injury."

Langstroth Frames for Wintering.—Mr. H. B. Harrington says: "Facts will show that bees in hives with deep frames....have died just as badly, if not worse, than those in the usual hives (Langstroth frames). Out of 37 hives of bees....17 in the "American" hives and 20 in Langstroth—all died in the American hives but 2, and there were 10 in the Langstroth hives that lived."

"Novice's" Report.—The following is taken from the department of "Blasted Hopes," in *Gleanings* for May:

> Started into winter quarters with about 140 stocks, in chaff hives, well protected, but pretty weak in bees.—During the winter and spring, the queens were sold out of perhaps 20 of them, and the bees were put with others. To-day, April 22, I have 12 hives with bees in them. Three of the 12 are gathering pollen fairly, but the other 9 will pull through, only with the very best kind of weather and care. The cause of the loss, so far as I can tell, is, first, too few bees; second, that the combs were handled and mixed during the process of uniting after queen-rearing, so that the bees had no chance to build and wax up in old tough combs before the approach of cold weather, as they usually do; third, the long winter, which gave them no *good* opportunity to fly, for a period of nearly 6 months. I am not quite sure in my convictions, from the fact that others lost heavily, who complied, so far as I can tell, with the first of the above conditions, and also that some wintered well whose bees were in as bad shape, or nearly so, as mine. Another thing, I do not know why those three fair colonies came out better than almost a hundred others. The above report is for myself,
>
> A. I. Root, Editor of *Gleanings*.

☞ Mr. G. M. Doolittle says: "If this weather keeps up long I shall lose half of my bees that were wintered on the summer stands, packed in chaff. Those in cellars are doing much better."

MISCELLANEOUS.

☞ By the *Eichstadtsche Beinenzietung* we learn that a committee has established itself to erect a monument to the honor of the Baron von Berlepsch, who has done a great deal toward the advancement of modern bee-culture. The monument of marble and metal will cost about $300, and will be erected in Erfurt, the capital of the Baron's native country. The petition closes with these words: "Honor yourselves, by honoring this great dead."

Timely Hints.—Mrs. L. Harrison, in the *Prairie Farmer*, gives the following timely hints to novices in bee-culture:

> The last half of April was very favorable for bees. It was astonishing how much pollen was carried in during warm, moist days. As there are but few bees in this locality, besides our own, we feed them diluted honey in the open air, and we never saw them build up faster at this time of the year. The shade trees of the city, such as cottonwood, box elder, soft and silver-leafed maples, hummed with the music of busy workers.
>
> As soon as a colony becomes populous, it would be better to remove frames of hatching brood, and give them to weaker colonies than to put on surplus boxes. Frames containing worker comb should be put in place of removed brood, and some apiarists claim that it is best not to separate brood combs, but to place these empty frames at the side instead of the centre of the brood nest. Bee-keeping is a knowledge of small items, and good judgment must be exercised in the practice of it. Thus in building up weak colonies at the expense of the strong, if we are not very careful we will soon have the best ones in the same condition that the poor ones were formerly; but if hatching brood is taken away no faster than the strong one can bear, and the colony is stimulated with feed, the apiary will be benefitted by the exchange. A good way to feed during stormy weather is to uncap frames of sealed honey and put it in the place of empty comb.
>
> During seed time remember the winged stock, and put in a tid-bit for them. Sweet clover, migonette, borage, mustard, etc., will bring quick returns, and when setting out trees do not forget the linden.

☞ Dathe, a noted German apiarist, has recently died.

SELECTIONS FROM OUR LETTER BOX

Taking Off Top Cushions.—When is the time to take off top cushions? I have not seen anything about taking off, but enough about putting them on. Mine are on yet. I lost 4 colonies in wintering—2 in frame and 2 in box hives. I believe in top ventilation; without it, I believe I should have lost all my bees. I will give an old Virginian's method of trapping moths: Put an iron kettle in your bee-yard, in the midst of the bees, fill half full with soapsuds, drive a stake solid in the ground near the kettle, nail an arm to it so as to extend over the kettle, then hang a glass lantern in the kettle so it will reach within 2 inches of the water. Light the lantern at dusk; the light attracts them, and they soon worry and fall in the suds. Throw a rug over it in the day time. J. N. B.
Linn Grove, Ind., April 22, 1881.

[Leave top cushions on till the nights become so warm as not to chill the brood, then replace with a blanket or honey-board till time to let the bees up in the second story.—Ed.]

Loss 90 Per Cent.—In this region we have suffered the loss of nearly all our bees during the past winter. I think that 90 per cent. of the whole quantity is dead. I know of none who had better success than I, and my loss was 5-12. Well, we are not discouraged; our survivers are working finely, and in every way are making a good start. I congratulate you on the success of the Weekly Journal. W. B. Spence.
Sidney, O., April 30, 1881.

Wintered Without Loss.—I put 30 colonies of bees in the cellar Nov. 10, and took them out April 23; they all came out alike strong with bees and had plenty of honey. They are at work now on the willow and popple. The loss in wintering has been very heavy in this vicinity. It was a poor honey season last year in general. From 25 colonies I took 1,000 lbs of comb honey and had 5 swarms. The Bee Journal comes every Friday; that is not too often. Mr. G. M. Doolittle's articles in the Journal were worth more than $50 to me last season. As long as I keep bees I shall take the Bee Journal. Clarence Marsh.
Sharon, Vt., April 25, 1881.

The Italian Bee not a Pure Species.—Mr. Demaree, upon this question, furnishes the readers with some very important considerations regarding the purity of the Italian bee, which he pronounces a hybrid, or a cross between a pure "yellow, quiet race, and a fierce, black, irritable race of bees," and he thinks it impossible that the race is pure. He is tempted to ask what is meant by the dark and light strains of Italians, and what point is the dividing line to be fixed. The dividing line, I supposed, had already been fixed, or so near that it was very satisfactory to all, or nearly so. As to color—*i.e.*, light and dark—it is of but little consequence, if the markings be true and uniform, which cannot be found in a hybrid of any kind. When the Italian bee is crossed with the black in this country, there is no uniformity of color about them. Does the same rule work in Italy as here? Certainly it does. It must be a settled fact, if they are a cross between the pure yellow and the pure black that Mr. Demaree speaks of, have they not been bred long enough to become a fixed type? Most assuredly they have. At least this is my experience with them 18 years. From the first I claimed they varied in shades of color as much as does the Anglo-Saxon race, but with uniform markings of the three golden bands; that is, the entire colony.

It seems that the writer had a starting point, as he speaks of a "pure yellow race" and a "pure black race." If there did exist a pure yellow race as he speaks of, is it possible that race is entirely extinct. As to the color of the beautiful Italian bee being altogether produced by a careful selection of our own, is a gross mistake. There may be cases where this to a certain extent is true. I have seen the brightest and most beautifully colored bees bred from one of the darkest queens I ever saw. This is quite common with many of the dark imported and home-bred queens, but the progeny of those queens did not show any signs of the black bee, even if they were several years old. As regards the different shades of color being evidence of their impurity, where they breed uniform, it is all bosh.

The month of March afforded but little food for the bees. In the peach, plum and many other flowers, the honey and pollen were mostly destroyed. Strong colonies bred heavily through March; some with little honey had much brood; the 25th of March we had a cold freeze which destroyed nearly all the peaches and killed large quantities of brood; the cold caused the bees to recede to the center of the hive to keep warm, leaving the young larvæ to freeze. This happened only in weak colonies, as the strong ones had plenty of bees to keep warm. On the 5th of April they commenced to swarm, which they have kept up quite busily. They are gathering honey rapidly at the present time, and the prospect is rather encouraging. The past season was one of the poorest known for many years, and caused some to retire from the field in disgust.

The past winter was a severe one on all colonies with but little honey. Strong colonies came through splendidly, and up to the present time some have gathered perhaps 20 lbs. or more. All the bees that have died are such as were destitute. White clover is now blooming, and many other flowers, giving the bees plenty to do. A. F. Moon.
Rome, Ga., April 23, 1881.

Prevention of Swarming.—I was delighted to see the change from Monthly to Weekly, and wish it every success. I have increased by natural swarms, since March 31st, from 13 to 35 colonies, and they were all very large ones at that. The bees are now in a feast of white clover bloom, and storing honey rapidly. I am now cutting out all drone comb and destroying queen cells, to try and prevent them from swarming. Am I pursuing the right course? If there is any better plan, please report it in your valuable Journal.
W. R. Thomson.
New Iberia, La., April 29, 1881.

[If you have the time to spare to go through your hives once a week and destroy queen-cells and drone comb it may do; but we would advise that you clip one wing of each queen. With a small pair of scissors or a sharp knife, cut off about ½ or ⅔ of the wing. The operation is quickly performed.—Ed.]

More Homer.—

The Weekly Bee Journal,
Long may it wave,
O'er the home of the bee
And the land of no slave;
Good-bye fogy notions,
Humbugs and queer ways,
Such as "king bees," "gums,"
And brimstone's blue rays (blazes).

Jacksonville, Ill., April 21, 1881. H. T. C.

Very Refreshing.—I commenced this spring with 132 colonies, have increased to 146, and have already extracted 626 gallons of honey. Counting the original number, it makes an average of 56.8 lbs. per colony. The white clover season closed on April 29. The next (which is the same as your basswood harvest), commences the first week in June and continues until the last of July. If the season is as good as it was in 1879 I shall get about 700 gallons more. My average that year was 9 gallons per colony, counting the number commenced with in the spring. I have never used an ounce of glucose and would quit the business if I had to use it. I have instructed my merchants to give away my honey if any trace of glucose can be found in it.
J. D. Bedell.
Franklin, La., May 1, 1881.

Heavy Loss.—I have lost 28 out of 31 colonies of bees during the past winter.
Wm. A. Brundaoe.
Lodi, N. Y., May 2, 1881.

Loss 50 Per Cent.—I had 14 colonies of bees packed in chaff on the summer stands. I have lost 7; the other 7 are strong. Nearly all the bees in this vicinity are dead. Success to the Journal. V. Fisher.
Ironton, Wis., April 30, 1881.

Spring Dwindling.—I must sorrowfully disclaim, as undeserved, the credit given my sister and myself for comparative success in wintering, in the Bee Journal for April 27. On March 9, after a 3 days' flight our bees received a thorough examination. Bottom boards were cleaned and honey given where needed. Those which had suffered more or less from dysentery—some 25 colonies—were found in much better condition than had been anticipated. They had considerable capped brood and no lack of bees to care for it. Brood enough had been reared to in part supply the place of bees which had died. But little honey was left in many cases, but this we could remedy. We found but 2 dead colonies—one from starvation. At that time we expected to lose no more. In answer to inquiries, about 10 days later, we reported as above, hence the statement in the *Saginaw Herald*. Some of our friends will not be greatly surprised to learn that our amended report is a loss of 15 out of 52. We close our 9th year as bee-keepers with our 1st experience in spring dwindling; we have never before lost a colony in wintering. We attribute a large part of our loss to the fact that we were unable to prepare our bees in good season last fall. We winter in chaff on the summer stands, and our theory is that the best results may be looked for only when the bees are packed early enough to insure their flying out after the packing.
Lucy A. Wilkins.
Farwell, Mich., May 3, 1881.

Bees Doing Well Now.—My bees are doing well now; some colonies are so strong that they hang out even during some cold nights. I have bought some and commence with 120 colonies, after a loss of 50 per cent.
H. D. Burrell.
Bangor, Mich., May 6, 1881.

Building Up.—My bees are doing splendidly. My Italians are rearing drones already. I have only 8 colonies and I want to turn them all to increase, and shall raise no surplus until I get as many colonies as I think I can manage. I do not know exactly what plan to adopt. I have plenty of foundation; bought a lot of comb built out, from parties that lost their bees last winter. I look over my colonies every day and give my queens empty frames as fast as they need them. I shall first build each colony up strong, before attempting any increase, then insert a division board in my best colony, separate the queen and part of the bees from one side of the hive, and then raise a lot of queen cells (or remove the queen entirely and introduce her into a nucleus), then form as many nuclei as I have queen cells. This is the best plan that I know of. W. T. Clary.
Claryville, Ky., April 18, 1881.

Packed in Chaff, Without Loss.—I put in winter quarters 33 colonies (27 in the Doolittle hive, the rest my own make). I put cotton cloth over at each side; packed the super and ends of hive with straw and chaff; put them in a row; drove stakes about 6 inches in front and 6 inches back of the hives; placed boards inside the stakes and filled in with buckwheat chaff, and from 6 to 10 inches of wheat chaff above, covered with boards to keep dry; laid a board in front, supported by ¼ inch blocks laid on the alighting-board, to keep the chaff from the entrance and give a chance for flight, which they did not get from about the middle of November, when I packed them, until in March. I fed them coffee A and granulated sugar in the fall, to last until March, and the winter held on so long that I did not open them until about the middle of April, when I found two starved, (my only loss); these two were dry and in splendid condition. My bees have been bringing in pollen for the last 3 days. By the bee papers I learn of heavy losses among the unfortunates being G. M. Doolittle (my guide). I sold 24 colonies, 23 of which are now silent: the one living was left with me, and I packed the super with chaff and left it out. They are carrying in pollen to-day. Mr. Doolittle says in forming nuclei he would wait 24 hours before introducing the cell, and would keep them shut up until towards night of the second day, to keep them from going back home. Now, how would he introduce the cell without the bees getting out? or would he smoke them down from the top, and put the cell on the frames instead of grafting it in? I learn of several having from 8 to 20 colonies in box hives, all of them dead; one apiary, 9 miles from me, of 160 colonies in the fall, in Langstroth frames. 100 dead; another of 30 colonies, in Langstroth frames, 18 dead 1 month ago, and expected to lose more. I am well pleased with the Weekly Bee Journal; success to it.
A. P. Cowan.
Grattan, Mich., April 24, 1881.

[Desiring Mr. Doolittle to answer the above query, we have obtained the following reply from him.—Ed.

"I said 24 hours' waiting, in opposition to A. I. Root's theory, to introduce queen-cell on taking queen out, which has failed 19 times in 20 with me. In this case the nucleus already had a laying queen to be replaced with a cell. When we make nuclei by the plan Mr. Cowan speaks of, we do not introduce queen-cell till after they have flown, unless the nucleus is made from queenless colony, as I prefer; in that case they are made 48 hours before the cell is ready to hatch."—G. M. D.]

Encouraged.—I fed some in the fall, but the cold weather set in so early that it proved a failure. All colonies that had stores enough are now in good condition and full of bees.
Robert Corbett.
Manhattan, Kan., May 3, 1881.

Bee-Keeping in Dakota.—Now that winter has passed and the floods have subsided, I will venture to give an account of bees and bee-keepers in Dakota. Twenty bee-keepers within my knowledge, who, last fall, owned over 800 colonies of bees, do not now own over 180 colonies. Seven of them lost all they had; and of these 7 the most of them were the largest bee-keepers here, 3 of whom live in Vermillion, Dakota. The loss from wintering I think will not exceed 20 per cent., the great loss was from the floods that have not only swept away bee hives, but in many places on the Missouri River bottom it has swept away houses, barns, etc., and also several towns and villages were almost entirely swept away, causing privation and suffering to a considerable extent. My bees went through the winter first-rate; I only lost 2 colonies; they are doing well now, and have their hives well filled with brood, and if the present good weather continues they will swarm as early as usual, notwithstanding the late spring.
W. M. Vinson.
Elk Point, Dakota, May 2, 1881.

Loss 80 Per Cent. In Cellar.—I put 109 colonies of bees in the cellar last fall, and have but 28 healthy ones now. They did not have honey enough for such a long winter. R. S. Johnson.
Lockport, Ill., May 3, 1881.

Loss One-Third.—The past few days have been fine for bees, and they have improved the time gathering pollen from the willows and soft maples. We had snow 4 inches deep on the 13th inst. The loss in wintering in general is very heavy in this locality, especially where they were left on the summer stands. My loss is about 33 per cent.; all wintered in house and cellar. The loss is mainly of those wintered in cellar, which was damp, and too cold.
W. D. Wright.
Knowersville, N. Y., April 28, 1881.

☞ Our Letter Drawer is yet very full, and many will be disappointed in not seeing their letters in this Journal.

SPECIAL NOTICES.

☞Single copies of the JOURNAL are sent postage paid for 5 cents each.

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☞Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

☞The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

◆

☞When changing a postoffice address, mention the *old* address as well as the new one.

◆

☞We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

◆

☞Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

◆

☞We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

◆

A Safe and Sure Means of restoring the youthful color of the hair is furnished by Parker's Hair Balsam, which is deservedly popular from its superior cleanliness. 18w4t

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☞Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

☞Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

☞The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

◆

PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

◆

☞At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

◆

☞It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Postoffice, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

Food for the Brain and Nerves that will invigorate the body without intoxicating, is what we need in these days of rush and worry. Parker's Ginger Tonic restores the vital energies, soothes the nerves and brings good health quicker than anything you can use.—*Tribune.* See other column. 18w4t

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Reader, if you are a sufferer it will do you no harm to send a statement of your case to us, and you will be advised by our Medical Electrician in relation to it. Enclose postage, and prompt attention will be given. Address, **ELECTRO APPLIANCE COMPANY, Limited,**
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Honey and Beeswax Market.

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HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 15@18c. for strictly choice white comb in 1 and 2 lb. boxes; at 10@12c. for common dark-colored and broken lots. Extracted, 7½@9½c.

BEESWAX.—Choice yellow, 20@23c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 14@17c.; dark 11@12; large boxes 2c. less.—White extracted, 9@10c.; dark, 7@8c.

BEESWAX.—Prime quality, 20@25c.

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HONEY.—The market for extracted clover honey is good, at 8@10c. Comb honey is of slow sale at 16c. for the best.

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SAN FRANCISCO.

HONEY—A general disposition to clean up stocks of extracted is enabling buyers to obtain concessions on previous asking rates. Late rains have materially increased the bee food in the leading honey districts, and there are now good prospects of a very fair crop. We quote white comb, 12@14c.; dark to good, 9@11c. Extracted, choice to extra white, 5¾@6¾c.; dark and candied, 4@5½c.

BEESWAX—22@24c., as to color.

STEARNS & SMITH, 423 Front Street,
San Francisco, Cal., April 30, 1881.

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CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	Club.
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A. I. Root)	3 00	2 75
Bee-Keepers' Magazine (A. J. King)	3 00	2 60
Bee-Keepers' Exchange (J. H. Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W. Thomas)	2 50	2 35
Bee-Keepers' Guide (A. G. Hill)	2 50	2 35
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Bee-Culture (T. G. Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

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Local Convention Directory.

1881. *Time and Place of Meeting.*

May 10, 11—Eastern New York, at Schoharie, N. Y.
W. S. Ward, Sec., Fuller's Station, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
12, 13—Texas Bee-Keepers' Association, at McKinney, Collin Co., Texas.
W. R. Howard, Sec., Kingston, Hunt Co., Tex.
17—N. W. Ill. and S. W. Wis., at H. W. Lee's, Pecatonica, Ill. J. Stewart, Sec.
17—N. W. Union, at Hastings, Minn.
F. B. Dorothy, Sec.
19—Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 11, 12—Northern Michigan, at Maple Rapids.
12—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

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☞We are very sorry to hear that both Mr. and Mrs. Doolittle are ill; Mrs. D. was thrown from a sleigh and received severe injuries, several weeks ago.

☞The Southern Michigan Bee-Keepers' Association will hold a meeting in Battle Creek, Mich., on Wednesday, May 11, 1881, at 10 a. m.
B. SALISBURY, *Sec.*

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☞The N. W. Wisconsin Bee-Keepers' Convention will be held at LaCrosse, Wis., in Germania Hall, Tuesday, May 11, 1881. Several essays will be read—one on "Wintering Bees," by N. Lossing, of Hokah, Minn., and one by L. H. Pammel, on the "Progress of Bee-Keeping." As a question box will be opened, it will consume a great deal of time to discuss the different topics. The custom of reading many essays will be done away with at this Convention, since it will be of more interest to discuss live issues than listen to essays.
L. H. PAMMEL, JR., *Sec.*

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☞The Annual Meeting of the Society for the promotion of Agricultural Science will be at Cincinnati, on Tuesday, Aug. 16, 1881, the day preceding the sessions of the American Association for the advancement of science.

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☞The bee-keepers of Missouri will meet in Convention at Mexico, Mo., on June 2, 1881, at 10 a. m., and hold a session two days. Dr. N. P. Allen, of Smith's Grove, Ky., President of the North American Bee-Keepers' Association, is expected to be present to assist in organizing a Bee-Keepers' Association; other leading bee-men are expected, due notice of which will be given. The programme will be published in a short time and will embrace such questions as will be of interest both to the novice and practical apiarist. All are invited to partake of and assist in this much needed organization. Those that cannot come will confer a favor by giving us a communication on some subject of interest to bee-men. P. P. COLLIER, *Vice Pres.*
N. A. B. K. Association, for Mo.
All papers of Missouri please copy.

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☞The next meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held at H. W. Lee's, 2 miles n.w. of Pecatonica, Winnebago county, Ills., on the 17th of May, 1881. J. STEWART, *Sec.*

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☞The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., October 11 and 12, 1881. DAVID EISHELMAN, *Pres.*
O. R. GOODNO, *Sec.*, Carson City, Mich.

Books for Bee-Keepers.

Sent by mail, postpaid, on receipt of price, by
THOMAS G. NEWMAN,
974 West Madison Street, CHICAGO, ILL.

Cook's Manual of the Apiary.—Entirely re-written, greatly enlarged and elegantly illustrated, and is fully up with the times on every conceivable subject that interests the apiarist. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, **$1.25**; paper, **$1.**

Quinby's New Bee-Keeping, by L. C. Root.—The author has treated the subject of bee-keeping in a manner that cannot fail to interest all. Its style is plain and forcible, making all its readers sensible that the author is master of the subject.—**$1.50.**

Novice's A B C of Bee-Culture, by A. I. Root. This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, **$1.25**; paper, **$1.00.**

King's Bee-Keepers' Text-Book, by A. J. King.—This edition is revised and brought down to the present time. Cloth, **$1.00**; paper, **75c.**

Langstroth on the Hive and Honey Bee This is a standard scientific work. Price, **$2.00.**

Blessed Bees, by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, **$1.00.**

Bee-Culture; or Successful Management of the Apiary, by Thomas G. Newman.—This pamphlet embraces the following subjects: The Location of the Apiary—Honey Plants—Queen Rearing—Feeding—Swarming—Dividing—Transferring—Italianizing—Introducing Queens—Extracting—Quieting and Handling Bees—The Newest Method of Preparing Honey for Market, etc. It is published in **English** and **German.** Price for either edition, **40 cents**, postpaid, or $3.00 per dozen.

Food Adulteration; What we eat and should not eat. This book should be in every family, where it ought to create a sentiment against the adulteration of food products, and demand a law to protect consumers against the many health-destroying adulterations offered as food. 200 pages. Paper, **50c.**

The Dzierzon Theory;—presents the fundamental principles of bee-culture, and furnishes a condensed statement of the facts and arguments by which they are demonstrated. Price, **15 cents.**

Honey, as Food and Medicine, by Thomas G. Newman.—This is a pamphlet of 24 pages, discoursing upon the Ancient History of Bees and Honey; the nature, quality, sources, and preparation of Honey for the Market; Honey as an article of food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, &c.; and Honey as Medicine, followed by many useful Recipes. It is intended for consumers, and should be scattered by thousands all over the country, and thus assist in creating a demand for honey. Published in **English** and **German.** Price for either edition, **6c.**; per dozen, **50c.**

Wintering Bees.—This pamphlet contains all the Prize Essays on this important subject, that were read before the Centennial Bee-Keepers' Association. The Prize—$25 in gold—was awarded to Prof. Cook's Essay, which is given in full. Price, **10c.**

The Hive I Use—Being a description of the hive used by G. M. Doolittle. Price, **5c.**

Extracted Honey; Harvesting, Handling and Marketing.—A 24-page pamphlet, by Ch. & C. P. Dadant, Hamilton, Ill. This gives in detail the methods and management adopted in their apiary. It contains many useful hints.—Price **15c.**

Practical Hints to Bee-Keepers, by Chas. F. Muth; 32 pages. It gives Mr. Muth's views on the management of bees, Price, **10c.**

Kendall's Horse Book—No book can be more useful to horse owners. It has 35 engravings, illustrating positions of sick horses, and treats all diseases in a plain and comprehensive manner. It has a large number of good recipes, a table of doses, and much other valuable horse information. Paper, **25c.**

Chicken Cholera, by A. J. Hill.—A treatise on its cause, symptoms and cure. Price, **25c.**

Rupp's Easy Calculator.—These are handy tables for all kinds of merchandise and interest. It is really a lightning calculator, nicely bound, with slate and pocket for papers. In cloth, **$1.00**; Morocco, **$1.50.** Cheap edition, without slate, **50c.**

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THOMAS G. NEWMAN,
974 West Madison Street., Chicago, Ill.

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☞ Programme of the Northwestern Bee-Keepers' Union, to be held at Hastings, Minn., May 17, 1881:

1.—Address of Welcome, by J. N. Searls.
2.—Reports of committees.
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4.—A paper by Pres. A. Tidball, on honey-producing plants and flowers.
5.—A paper by Dr. P. Barton, of St. Paul, on honey as food and medicine.
6.—Apiary culture and our fairs, by Hon. William Avery, of St. Croix Falls, Wis.
7.—A paper on sales of honey, by F. B. Dorothy, of Taylor's Falls, Minn.
8.—A paper on wintering bees, by L. Day, of Farmington.
9.—Progressive bee-culture, by J. G. Teter.

The above subjects will be open for discussion. In addition to the above, the following subjects are suggested:

1.—Essential properties of a good bee hive.
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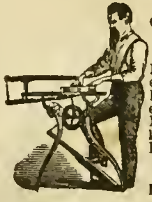

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Greencastle, Ind., April 16, 1881.

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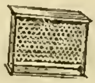

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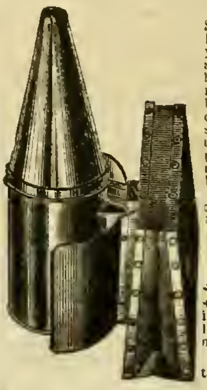

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DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO. ILL., MAY 18, 1881. No. 20.

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CORRESPONDENCE.

Translated for the American Bee Journal.

The Apiary of Mons. Fiorini.

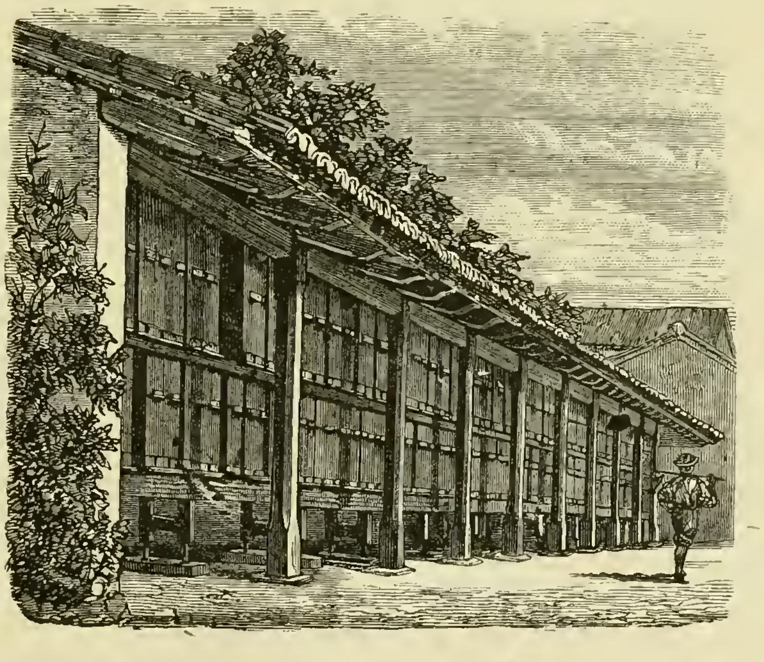
CHAS. DADANT.

By request of the editor of the BEE JOURNAL I translate the following very interesting editorial article from *L'Apicoltore:*

" Who has not heard of Fiorini, the enterprising bee-keeper who last year made a trip to the Orient expressly to secure the direct importation of the far-famed bee from Cyprus Island. As soon as he had returned from his journey, in January, 1880, he informed me of the successful issue of his undertaking, and invited me to come and see the colonies he had brought with him. I hastened to Monselice, a town on the road between Padua and Bologna, where Mr. Fiorini resides. At Padua I met Mr. Sartori, who, returning from Venice was on his way to Monselice. Major Hrushka, the inventor of the honey extractor, was to be one of the party, but, to our sorrow, at the hour of starting Mr. Sartori had to depart alone. From Padua one hour by railroad brought us to Monselice, where Mr. Fiorini came to meet us. We went to his home, and immediately turned our attention to the beautiful Cyprian bees.

" Mr. Fiorini, with difficulty, had succeeded in gathering together 8 colonies at Lanarca, as he narrated in the description of his journey (see AMERICAN BEE JOURNAL for Aug., 1880, page 373). Six of these colonies were put in small boxes especially prepared for the journey, and two were in their original hives or earthen jars. Yet, although Mr. Fiorini used every precaution to strengthen the poorest of them, some were yet very weak; the winter being unusually cold, he experienced great difficulty to bring them through the winter. These colonies were placed at a southern window, to allow them to go out and discharge their feces, so necessary after such a long confinement. Every evening these colonies were brought into a warm room. Notwithstanding these precautions, two queens perished, leaving but 6 colonies alive. This misfortune had destroyed my hope of getting some of these colonies, but Mr. Fiorini was willing to keep his word, and sold me two colonies, besides presenting me one of the earthen hives where the queen had died.....

" Mr. Fiorini had not yet thoroughly examined the small colonies, hence I had the opportunity of seeing 7 Cyprian colonies and 5 queens. I noticed that the Cyprians, as well as the Italians, are not perfectly alike in color. In fact, I saw one queen much more yellow than the others, and one colony where the color of the workers was perceptibly lighter than the copper-yellow of the bees of the other Cyprian colonies. As to this special color, I notice a curious coincidence. It is said that the first copper was found in the Island of Cyprus (*a Cypro caprum dicitur*). The name of Cyprian is therefore twice related to these bees, since they were first noticed at Cyprus, and since they are copper-colored. Both of these circumstances will probably perpetuate the name of Cyprian to those bees, although the same bees can be found in all Asia Minor, and in a large part of the East, as we will see. The most distinct mark of the workers of this kind has not yet been noticed, which consists in a mark of the same yellow as that of the abdomen, which, in the form of a half-moon, occupies nearly all of the third ring of the corslet of the worker.



One of Mr. Fiorini's Apiaries, located at Merandole, Italy.

" All the full-blooded Cyprian workers have this characteristic mark, which can be distinctly seen when the worker to be examined is immersed in alcohol. The corslet of the Italian worker is generally of a uniform tinge which approximates black. There are, however, some colonies of Italians in which a few of the workers are adorned with the above mark of the Cyprian. This mark is, moreover, always smaller and of a duller yellow, and, in fact, such bees are an exception, at least in the locality where I have had occasion to notice them. This mark, which in the Italian is an exception, in the Cyprian, on the contrary, is a fixed characteristic. Was the Italian bee original in the Orient; or is this mark, which is sometimes visible on our bees, a phenomenon of atavism*. Who knows?

" Cyprian queens have no such mark, for I have not seen it either in the directly imported queens, or in their queen progeny. Every queen is without this mark. This fact seems to be very singular. What is still more curious, is that, while the color of the hair and of the skin of the workers are generally yellower, the queens have the rings with black bands very well marked, but narrower than in the Italian. This does not mean that they are less beautiful—that depends on the taste. The bee-keepers, outside the Alps, think a queen the more beautiful when the black color is least, because the preponderance of yellow is for them a guarantee of purity. In the Cyprian queens both colors are, it seems, more distinct. One makes the other more apparent, by the contrast, which prevents dullness, and to my taste is more beautiful. I have dilated on these peculiarities, because some find the Cyprian queens very fine, while others, looking for the test of purity in the increasing yellow color, find these bees not so beautiful, and because such a remark can have some weight on the sales of queens.

" Mr. Fiorini, in his journey to the Orient, gathered worker bees at Corfu, Jaffa, Ramble, Jerusalem, Mount Olivet, Bethlehem, St. John in the Mountain, and Beyrout, as he narrated in the description of his journey (page 373 of AMERICAN BEE JOURNAL, 1880). I examined these bees carefully one after another.* All (about 50 in number) have, like the Cyprian, the third ring of the corslet yellow. All were, like the Cyprian, a little smaller than the Italian, although having been gathered on the continent, and that, too, to my mind, proves that the smaller size of the Cyprian is not the result of their inhabiting an island, a circumstance which generally influences the growth of other animals. I found some of these bees a little more yellow than others; but I had already noticed similar differences between the bees of the several colonies imported by Mr. Fiorini, and we know that it is usual among the Italian. Besides, as all these bees were gathered in the same phial and in small numbers, I was unable to know whether these small differences were local and constant, or only accidental.

" I examined the drones later. They are, among the Cyprians, more beautiful than either the queens or the workers. The hairs of the Cyprian are whitish; three rings of the abdomen, the nearest to the corslet, and sometimes four, are adorned with copper yellow in their upper part, and this in all the colonies, at least as far as I noticed. Yet the drones, like the queens, have not the yellow mark of the workers. In the Italian bees the drones are not all adorned with yellow, a large part of them having only some yellow marks, and a greater number of them being about uniformly black.

" As I said about the Italian workers, which have exceptionally the mark of the Cyprian, there can be found a few Italian drones, although very rarely, which are as yellow as the Cyprians; yet the Cyprian drones can easily be distinguished by the whitish color of their hair.

" According to some, one of the merits of the Cyprian bees is that they are less inclined to rear drones. Mr. Fiorini narrated that in the 8 colonies he found but about 10 square decimeters of drone cells (a square decimeter is about four inches square). The earthen hive which he gave me while I was at Monselice, had no drone cells; yet my observation in this my first year with Cyprians, did not confirm the persistence of this quality. I have some reason to think that the combs observed by Mr. Fiorini were those of after-swarms, or of first swarms who had built during a scarcity of honey.

" As to the greater or less tendency to sting, I will wait for another year before pronouncing an opinion.

" To sum up, I do not think that there is the least fear of the Cyprian bees taking the first rank which was conceded to the Italian amongst the other races, and that in spite of the popularity that in these late years they have acquired, and by which, of course, the queen-breeders will profit. Yet, I think that a decided advantage will be gained in the direct importation of this beautiful race, by the crossing between our best queens and the drones of Cyprus.

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* *Atavism*—The recurrence of the original type of a species in the progeny of its varieties.—WEBSTER'S UNABRIDGED.

* Count Gaetano Barbo, the writer of this article, is a very good microscopist.—CH. D.

"The Cyprian bees were the great, but not the sole aim of our journey. Knowing that the apiary of Mr. Fiorini was among the best in Italy, and the skill with which he manages his bees, I was in great expectations. I am happy to say my anticipation was exceeded.

"Mr. Fiorini had wintered over 500 colonies of bees in 3 places and 4 apiaries. One of these places with 2 apiaries, each of 100 colonies, is in the garden adjoining the residence of Mr. Fiorini, at Monselice. Another apiary of 200 colonies, of which I give the engraving (see first page), is in one of the properties of Mr. Fiorini, in a place named Merandole, and a third in another property, numbering above 100 colonies.

"The apiaries or bee-houses of Mr. Fiorini are made with roofs covered with tiles, and supported by wooden plates and rafters, under which a long and solid beam holds two stories of hives. Every one of the posts has an iron foot which is plunged in a small stone recipient of water, in order to obtain a complete insulation. All the hives are three stories high.

"Some of Mr. Fiorini's hives are double and even treble, and which can be reduced to one by taking out the partitions. Experience has taught him, as well as a number of others, that the best way to obtain the greatest amount of honey is to repress natural swarming. In spring he chooses from his colonies the most populous, which he puts in the triple hives; as soon as one of the compartments is full he takes out one of the division boards; when both these compartments are full, he takes out another partition. With such management, he obtains over 30 kilo. (66 lbs.) of honey, with enough honey for the bees to winter on.

"The apiary at Merendole faces the east. The sun warms it only for half a day. When the bees return from the fields loaded with honey in the afternoon, most of them, before entering the hive, alight on the ground, which is cold, and are unable to repair to their hives. If the night is a little cold, and if the sun does not shine the next morning, most of them are lost. Mr. Fiorini, to obviate this inconvenience has 4 men, who with gloves gather the bees in large pans, sometimes in great quantities. These bees are put in a warm room and enabled to return to their hives.

"When I visited the apiaries of Mr. Fiorini, only one was occupied; all the hives were gathered in a large room near each apiary, secure and dry in a temperature which does not go under –1 nor over +1 (from 30° to 34°). A humming a little stronger could be heard when we entered this winter repository.

"Every one can imagine how great the work to manage such an apiary. Such an undertaking could not succeed but for the good order which I have admired at Mr. Fiorini's. Two large rooms are used—one for the preservation of the combs, the other, facing the north, is the working-room. In 2 large cupboards are gathered thousands of combs, empty or filled with honey. In a third cupboard are the small combs used in shipping the 800 queens that Mr. Fiorini exports annually.*

"Mr. Fiorini showed me also his correspondence with the Italian Secretaries of State and of Agriculture, and with his agents in the Island of Java,† in order to attempt the direct importation of the *Apis dorsata*, which is larger than ours. With a great deal of persistence, Mr. Fiorini had nearly succeeded in importing this race of bees, as I could see by the following letter communicated to him by the Secretary of State, under date of Aug. 18, 1877:

"'SIR: In compliance with my letter of March 28, I present to your notice a report which comes to me from the royal consul of Singapore. This royal functionary writes me that in compliance with information directed by Mr. Van Oosterzee, consul to Batavia, and of Messrs. Tidman, Balfour & Co., Mr. Ferrari, of Buitenzorg, who was intrusted with the search for bees in this Island, has succeeded, in some places, in procuring some of these bees.

"'In view of the desire of Mr. Fiorini to import these bees, and thinking your signory would prefer the successful sending through the peninsular line, I have taken steps to send them directly from Batavia to Venetia, through the English line, with a recommendation to the agency of Singapore, to take all possible precautions for the transportation and the placing of the boxes on board. I beg your signory to bring to the notice of Mr. Fiorini the forthcoming arrival of the desired insects, so that he may be ready to take steps for their reception. G. MORNIELLI.'

"Mr. Fiorini was planning a bolder scheme, and he had for a long time spoken of it to me, but the American Benton has the start in going to Java, as appears from his letters published in the bee papers. As everybody will see, Mr. Fiorini has more than one claim to the public gratitude, and the President of the Central Association, in giving him the gold medal, was but the interpreter of the unanimous wish of the Italian bee-keepers.

"If these lines should induce some bee-keeper to visit Mr. Fiorini, I will be glad of it, for such a visit will be productive of precious practical notions; of encoaragement, and of the conviction of the unexceptionable importance of our pursuit. In remembrance of the lively and cordial reception and of the indefatigable condescension in satisfying my insatiable, and at times indiscreet curiosity, I send to the bee-keeper of Monselice an apiarian greeting.

"G. BARBO."

For the American Bee Journal.

The Central Idea in Wintering Bees.

J. W. MCKINNEY, M. D.

In consideration of the unusual mortality among bees the past winter, all through the States lying north of the State of Tennesee, I am disposed to state my success in wintering.

As spring is now fairly established, and all danger from spring dwindling is passed, we can the better judge of the full merit of this or that mode of wintering bees. Many reports made in the months of February and March of successful wintering, will prove premature and have to be largely revised; for to my certain knowledge, in this section of the country, many colonies that had struggled through five months' of cold winter-weather, perished during the first part of April.

For many years it has been a matter of surprise to me that there should exist such diversity of opinion among apiarists in regard to the best mode of successfully wintering bees in the Northern States. Every thoughtful and observing apiarist must know or ought to know, the more quiet bees are kept the better they will winter. The more evenly a temperature, between 35° 45° is maintained in the immediate vicinity outside the hive, the better they winter. The purer the atmosphere that enters the hive, the better they winter. With these conditions and a sufficiency of honey in the hive, all doubt can be obviated about successfully wintering bees.

Can these conditions all be secured and maintained in any place so easily as in a cellar? If not, then why take the hazzard of out-door wintering? Pack them as you will on summer stands, in chaff, or whatever else you please, you hardly expect to control the temperature of the atmosphere in which they live for the winter. Some one might ask, has there not been many failures the past winter, as in seasons preceding, in cellar wintering? Most certainly there has; and why? Because the important central idea in cellar wintering was lost sight of: viz., that of maintaining a low, even temperature.

I know some of our very best apiarists who lost sight of the importance of this, and resorted to frequently heating their cellar by means of a stove last winter. The result of this uneven and sometimes high temperature, was disastrous to the bees. Though in a perfectly dark cellar, brood-rearing was begun early in the winter, which naturally shortened the life of the old bees, and as the young bees were deprived of the necessary flight when one or two weeks old, the result was disease and death of many colonies. Much worse results followed, however, in this vicinity where bees were wintered out-of-doors, 80 per cent at least having perished in this and adjoining counties during the past winter.

Now for the manner in which I wintered my bees: With the assistance of a hired man, I put 50 colonies of bees in an under-ground cellar on October 23 last. On November 11, I put 70 more in the same cellar. Of the above 120 colonies, 23 were nuclei and 27 were weak in bees and light in supplies, leaving but 70 in good condition for wintering, as regards quantity of bees and ample supplies. I took some out and placed them on their summer stands March 21. Those first put in the cellar, were not removed till April 7th. The continued cold weather kept them from taking a cleansing flight till April 14th, thus having been confined to their hives for more than 5½ months, (or 173 days.) On moving them from the cellar, I found 2 standard colonies dead, having been smothered by the entrance becoming closed, and 3 of the nuclei having consumed their supplies, had died. Some 4 or 5 of the weaker nuclei chilled to death during the latter part of March, and first part of April, leaving 110 colonies that wintered safely through this long cold winter in my under-ground cellar, at a temperature never above 45° nor below 33°.

Camargo, Ill., April 28th, 1881.

For the American Bee Journal.

Waxed Ends.

B. HIX.

Az fur az mi own observation extends glewcose is the best hunny plant yit diskovered; it wil stan enny klimate or sile, is purrennial in its habbits, and is as ezy tew kultivate az a Kanada thissle, and full az eazy tew erraddicate. Its hunny cups air shaller, sow a short tonged bea is gest as good az one a foot long. If yew hev this plant growing in yewer naberhood, a Be Journal is onnessary and overstocking onpossible.

Ten year ago i new awl about beas and waz so positive az to frekently alterkate with objectors on kardinal pints, but poor sesons and tuff winters, sandswitched with agravated attacks or long spring dwindles, haz dun fur me what argyment culd never do, and now i don't no enuff about beas 2 overstok the market; but ive found out won thing: wilfull old natur had jest az soon kil won hunderd and foar kolonies az one. I don't try to arger with hur enny moar. She nose the hull story, and wil hev the last word.

I went 20 mile tew kall on a man that grandilloquizes in the papors about hiz "litle petts." He had 2 strong hives in a week kondition, and it wuz so nasty around thar I dident sta tew dinner.

When i sea a amitewer watchin his beas a falen into the sno, I drive rite along; hiz kountenance iz enuff fur me.

The man that reporteth a bigg hunney kropp and at the same time a large inkrease ov kolonies, is purty shure tew hev hiz name writ into the order book ov a glewcose seed store.

During the late thaw i see a man examinnin his beas; tha wuz so quiet like that i ventured klose. The konfident look that he wore las fall wassent thar now enny more, and as the okkasion wuz won words cuddent reech, i took mi departuer.

When the freemometur wuz nappin at 10 below, mi naber moved 13 kolonies 7 mile, and sot thum in his yard. He sed he chused a kold da so az not to git stung. Now i hate to meet a sollum man, but we met 2-day. Hiz bees air the stingless variety.

Translated for the American Bee Journal.

Shall Bees be Fed in Winter?

L. H. PAMMEL, JR.

The following article on the above subject, by Dr. Dzierzon, is from the *Beinen-Zeitung:*

"Too much honey in the fall is dangerous, as all the cells will be filled with honey, and the bees will have a very cold place to winter in, and the consequences are that many dead bees will be found in the hive. Bees, like all other animals, require as small a space as possible in which to contract themselves and keep warm. They are not only found to occupy but a small space between the combs, but in many of the cells bees can be found; perhaps more are found in the cells than between the combs. Now, if the cells are filled with honey the cluster will be of an unequal size, the cold sheets of honey will cause dampness, and the uncapped honey become sour and watery and lose its entire aroma. This is only the case with honey as soon as breeding stops. If the honey is distasteful to the bee, some other honey should be put in its place. It is, therefore, advisable to take away some of the sealed honey and store it for winter use in feeding, as this feeding can be done to great advantage when the bees take a purifying flight.

"It is still better to have 3 or 4 colonies in one hive if possible, and place small partition boards, with holes, between the brood and honey chamber, and put some honey in the storage chamber, by first removing the moss or hay; in this way bees can be fed without disturbing them or causing excitement.

"But should you give sugar candy or anything of that nature, bees will eat it, as it requires considerable moisture to dissolve it—a great deal more so than it does to dissolve honey. It is a well known fact, that nothing can be more dangerous to the bees than a disturbance, especially if everything is closed so that they cannot fly out; for if they are disturbed they exhaust themselves in attempting to get out. Therefore it is better never to close the entrance entirely, unless for transportation, for it is much better to lose a few hundred bees in this way than to lose the entire colony. No sensible bee-keeper will feed his bees after a fresh fall of snow, or during the prevalence of a cold wind. Not many bees will be lost when it is quiet and cold, as they soon experience a chill and quiet down. It is always best to feed bees at dark, as they will not then endeavor to fly, and all danger from excitement will be avoided."

For the American Bee Journal.

How to Test Italian Queens.

O. H. TOWNSEND.

The method in general use is as follows: If all the workers show 3 yellow bands they are classed as pure Italians, and this is carried so far as to advise the bending of the bees, or placing them on a window, in order to discover the bands. I am sure the above rule has caused many a colony of hybrids to be classed as pure Italians.

I have several colonies of hybrids which are ⅛ black in blood, the worker bees of which all show the 3 bands, without bending or placing them on a window.

This method of testing Italian bees has led many to believe that the dark Italians are crosser and more inclined to sting than the light ones. As I am ready to defend the dark Italians I shall firmly plead for them—"not guilty." Some who have Italians, and some well-marked hybrids, call the latter dark Italians, and they do not wish to use queens from the latter because they were too cross. These hybrids showed the 3 bands, when the above directions were followed, or, "when we looked for them right," by bending the body, using plenty of smoke to cause them to fill their sacks with honey, or placing them on a window, etc.! I am not personal. I only write to discuss the method of testing queens, which, according to my judgment, has been found wanting. As some may desire a better test I will give it:

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* One-fourth of this exportation comes to Mr. Ch. Dadant, the translator.—ED.

† Prior to ordering bees from Java, Mr. Fiorini had condescended to consult me about the best way to get these bees alive, and it was in accordance with my advice that he sent to Java the boxes all prepared to receive the bees. Had he succeeded, I should have been the first to import the *Apis dorsata* into this country. Yet, that such importation will succeed is very doubtful, on account of the difference in climate, the thermometer in Java never going under 50°; and because these bees are not accustomed to live in cavities, but to hang their combs under the limbs of trees. CH. DADANT.

1. The worker progeny of a pure queen (whether light or dark) will all plainly show the 3 bands peculiar to their race, as they stand on the combs, without feeding. bending, or placing them on a window.

2. They will all have light downy rings around that part of their bodies back of the 3 yellow bands. Sometimes these rings of down or hair are worn off from the effects of having honey on their bodies, as in case of robbing, etc. When the absence of these rings is thus caused the back part ot the abdomen always presents a shiny, black appearance. I always find, sooner or later, that all queens not bearing the above test will show their impurity by the disposition of their workers. I usually use more smoke when handling such, than I do with pure Itallans. They will not keep their place on the combs like the latter while being handled, and sometimes they will leave the combs entirely, and roll over the sides of the hive like black bees. Again, some of their queen progeny, even though they mate with pure drones, will produce cross workers although they look like fine Italians; but a close examination will show the absence of the rings of down on a part of the bees. Such will not be shiny-black unless smeared with honey or syrup.

I claim that the bright rings covering the back part of the bodies of all the bees of a colony is a sure test of purity. The bees must be several days old before the above test can be applied, as it is difficult to distinguish the light rings on bees just emerged from the cells; but if it is a pure colony the 3 yellow bands can be seen as soon as the bees are hatched, while they stand in a natural position on the comb. When all bee-keepers adopt this method of testing their queens, the dark Italians will no longer be called crosser than the light ones.

Hubbardston, Mich.

* * *

For the American Bee Journal.

Chaff Packing—The Result.

J. H. TOWNLEY.

The old reliable and ever welcome BEE JOURNAL makes its regular weekly visits filled with interesting and valuable informaton upon all topics connected with bee-keeping. The past winser has been worse than the winter of 1842-3. Cold weather then commenced Nov. 17 and continued until near the last of March, but we had warm weather by April 1. This year on April 3 it snowed, and on the 2d it was only 7° above zero. In 1842-3 I was so unfortunate as to lose all the bees I had, one "skip" in a hollow log, but found another one in April with which to commence again, and have been without bees but 2 years since.

Chaff; Oh yes, chaff! how about chaff now? As I was the first to bring chaff packing as a winter protection to bees before the bee-keeping public (in *Gleanings*), I am again receiving letters in relation to it, while some of the writers intimate that the "baby" is dead or dying, others seem to be just a little "sarquastic;" for instance, as follows:

"How do you manage to winter your bees on chaff? Do you give it to them clear, or do you mix it with honey, sugar, or glucose? Do you cook it or do you feed it raw? Do you have it ground or feed it whole? Will it not produce dysentery if fed whole without bolting?" etc.

It has now been 10 years since I first commenced wintering bees packed in chaff. I have heretofore been very successful with it, but the present winter has been a little too much for the chaff. The winter commenced early. The last good flight the bees had was in October; from then until the 6th of March they were kept in their hives by cold weather. Bees have died all around me in cellars, out-doors, and, in fact, in all other ways of wintering them. Whole apiaries, consisting of 2 or 3 colonies up to 150, each have been swept out of existence, leaving nothing but hives and combs. Last season was very poor here for bees; but few colonies stored any surplus honey; hardly enough was collected during the fall crop to keep up breeding; they went into winter quarters light in numbers and weak in stores; I was away from home, too, when I ought to have been there preparing them for winter, and they were not put up as they should have been. As a consequence, all I have left now is 54 colonies.

Tompkins, Mich.

* * *

For the American Bee Journal.

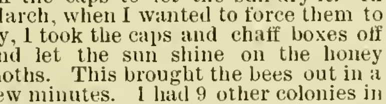
Wintered well in Chaff Packing.

C. W. MCKOWN.

Last fall I had 24 colonies of Italians in double-walled hives, with 4 inches of space between the walls on every side of the bees. I packed this space full of dry wheat chaff; gave no ventilation at the bottom, but the entrance, ½x4 in. I used boxes as large as the body of the hives, 6 in. deep, with common muslin for bottoms. These were filled with the same kind of chaff and placed in the hive, and the caps were put on over all. This gave no top ventilation except what could pass through the chaff box and out between the hive and cap. In place of a honey board I used a piece of thin cloth on some, one thickness of home-made carpet on others, or a heavy woolen cloth. The frames I use are 11¾ in., in side measure. My bees were in good condition in the fall, but some of the honey was not capped and consequently soured and caused some mold. Some of these colonies did not fly from Nov. 18 to March 15; others flew a little 3 or 4 times between these dates. My loss in these 24 colonies was one, which by some unaccountable blunder was "chaffed" only on 2 sides. There were some dead bees in all the hives, and dysentery in several, though not very bad in any but one; this I surely would have lost in March had I not resorted to radical treatment. One day in March I found the bees daubed and not disposed to move or fly; so I took the honey cloth off and let the sun in between the frames. The bees soon began to roar and crawl all over the hive. Many flew away and never returned, others crawled out and back. About ½ the bees never returned, but those that did were cured, and now it is a good colony. But the color of the hive was changed from clear white to dirt brown.

Bees packed in this way are not affected by a solitary warm day—it takes about 3 of such to briug them out. Some moisture accumulated in the chaff over the cluster, and I repeatedly lifted off the caps to let the sun dry it. In March, when I wanted to force them to fly, I took the caps and chaff boxes off and let the sun shine on the honey cloths. This brought the bees out in a few minutes. I had 9 other colonies in single-walled hives; the caps filled with wheat chaff and about 12 inches of the same on the outside, covered with boards. Of these I lost one. So my loss in 33 is only 2. Some tell us of failures with chaff, but they do not tell us what kind of chaff was used, how much, or in what way. I believe the chaff hive theory is correct, and the failure is in the manner of doing it. The prospect for a good honey season here is excellent. There is an extra fine crop of white clover coming on.

Gilson, Ill., May 2, 1881.



CONVENTION NOTES

Eastern Michigan Convention.

The Bee-keepers of Eastern Michigan met at Detroit on May 3, and formed the Eastern Michigan Bee-Keepers' Association, with the usual Constitution and By-Laws.

The following were elected officers for the ensuing year: President, A. B. Pierce; Vice-President, Wm. Morhous; Sec., A.B. Weed; Treas., J. G. Sanborn.

The chief topic of discussion was the comparative merits of imported and home bred queens. All agreed that further importation was undesirable.

Mr. Otto Kleinow belived that imported queens were the best for those who bred queens for sale, because they sold better; he saw no difference in the working qualities of the two kinds. He was of the opinion that Italian blood would run out.

Mr. Hunt thought that blood was as likely to "run" one way as the other. He believed that Americans surpassed the Italians in skill in breeding.

Mr. Holbrook said that Italians would not run out if the drones in the neighborhood were of the right kind.

Mr. Herberstute had had black bees that ran to Italians because there were Italian drones in his neighborhood.

Mr. Holbrook said that the same principles applied to the breeding of bees as to cattle.

Mr. Pierce said that American bred cattle were equal to imported.

Mr. Weed thought that frequent importation of fresh blood precluded the possibility of improvement by selection.

The question "why do bees swarm out in the spring" elicited much interest. The conclusion was that it was because of uncomfortable quarters.

Mr. Hunt and Mr. Morhous had some that swarmed out this spring, when the closest examination revealed no cause.

Mr. Holbrook said that there was yet much to be learned about bees.

Mr. Kleinow had observed that a slight covering, if dry, was better than a heavy one if damp; he considered ventilation above the chaff necessary.

Minor subjects were discussed and the Association adjourned to April 11, 1882, at Detroit. A. B. WEED, *Sec.*

* * *

Read before the Central Michigan Convention.

The Lesson of the Winter.

PROF. A. J. COOK.

I do not know that Shakspeare was a bee-keeper, though he seems to have been almost everything; or at least to have been intimately conversant with all kinds of men and their various crafts; but I do know that his "sweet are the uses of adversity" is specially pertinent, after such a winter as we have just experienced, and may well serve as the text of an address to practical bee-keepers.

As many who have suffered sore losses will wonder where we can see aught of sweetness, I propose, on this occasion, to indicate just where we have received value from the unwelcome losses of the past severe winter.

We have previously learned that to winter our bees on the summer stands, with no protection, was neither safe nor wise. Bees thus neglected may pass safely through several winters. But he who trusts his bees, with no protection from the full sweep of the winter's blasts, can never be certain that his pets will live to greet the sunshine and bloom of the coming spring.

Past experience has also taught us that good cellars, thoroughly adapted to the requirements of our bees, were safe, and could be safely trusted with our little insect servants, even though the storms raged in maddest fury for four or five months. The past exceptionally severe winter has been valuable in showing that this opinion was in no wise vain. Good cellars are again vindicated as the most secure places in which to winter bees.

We have also been taught by our practice in the past that chaff hives, or packing about the hives with chaff, sawdust, or straw, would aid to ward off calamity in severe seasons, but we had not had such a trial as would warrant us in pronouncing them wholly safe. The past winter has furnished a crucial test. The verdict is an important one. This seems to call in question the trustworthiness of the heavy, costly chaff hives, and certainly pronounces against the efficiency of the method of packing. A good packing box will cost, at least, $1, which will be the extra cost of a good chaff hive. These latter are, besides, inconvenient and awkward. Now if the past winter is fruitful in convincing bee-keepers that such packing boxes and hives are insufficient, and thereby saves to each bee-keeper $1 per colony, it will not be wholly in vain; and we shall be able to see some use in adversity.

Again, the past winter has shown that cellar wintering saves no small amount of honey. Colonies wintered out-doors, even though well packed, have eaten 20 or 30 lbs. of honey, and in some cases seem actually to have starved to death, after eating all their stores, while colonies in the same condition have wintered in the cellars on less than ⅓ the amount of honey. The extra honey consumed is worth $2 a colony.

More than all this, the bees are also dead, which adds $8 to the loss. It will quickly be seen that a few colonies of bees will pay all the expense of a good cellar, or of converting a poor one into one that is suitable. The present winter has more than ever settled the question in favor of good cellars for wintering bees in all the Northern States of our country.

Last autumn all our colonies of bees at the Agricultural College were strong, and were provisioned with about 30 lbs. of good capped honey to the colony. On Nov. 10, ½ were packed in straw—the packing being one foot in thickness—and immediately above the bees there was placed 6 inches of chaff. One of these colonies was also in a Shuck hive. The other half of our bees were, on the same day, placed in the cellar. Just 5 months later, on March 10, all were examined and permitted to fly. There was no suitable opportunity previous to this date. Those in the cellar were all in good condition, while each colony had over 20 lbs. of honey. Half of those out-doors were already dead; the others were suffering in no small degree from the dysentery, though the colony in the Shuck hive was in far the best condition. On the evening of March 10 I placed all in the cellar except the colony in the Shuck hive. Since then one, which was reduced to a mere handful of bees, has died in the cellar. The colony in the Shuck hive is no more. This hive was warranted, I believe, to be all-sufficient, without any packing. Warrants do not always save bees. Had I removed this colony to the cellar on March 10 I feel sure it would have remained with us. I do not regret, however, that I gave the hive the trial, though I do regret the result.

The great *sine qua non* to successful wintering of bees, next to a sufficiency of good honey, is a uniform temperature, neither too hot nor too cold. Too much heat irritates, induces uneasiness, over-eating, and, if the bees are restrained from flight, death. Cold likewise stimulates to activity, that the bodily heat may be kept normal; undue eating follows as a necessity, and, as before, with prolonged confinement comes death.

With such prolonged cold as we have had the past winter, the best chaff hive or style of packing will prove insufficient to maintain this uniform temperature, which should range from 35° to 45° F. But a well-arranged cellar will secure this desideratum, and so may always be counted on to bridge over calamity with bees that are in good condition in the fall, and that are provided with sufficient good capped honey; and as we have seen, it requires the minimum amount, if we winter in a good cellar.

A uniform temperature in a cellar may be secured in either of 2 ways: First, by sub-earth ventilation, where the cellar is constantly supplied with fresh air drawn 30 to 40 feet through the earth, quite below the freezing point. Or, secondly, by keeping a large body of water in the cellar. This, as in our cellar, may be accomplished by arranging the out-flowing drain pipe so that it will be higher than the bottom of cellar.

A better way would be to have the cellar well drained, and have a large cistern in it. As you all know, such a body of water would serve excellently well to modify temperature, keeping it warm in the cold winter days and not suffering it to rise during the warm days of winter and spring.

I fully believe that in a cellar thus prepared, colonies of bees which were in good condition in the fall, might remain for 6 months in prime condition. Two small nuclei in our cellar survived until March, the past winter, and then only died because the water raised till it covered the bottom boards, owing to our floods. The old idea that a cellar must be dry to be safe for bees, is not founded in fact. Ours has worked well for 2 winters, and has had from 4 to 8 inches of water in it during all the winter through.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., MAY 18, 1881.

☞ Sweden has this season had one of the severest winters ever known.

☞ We have received a crate of Given's foundation in wired frames, which we will test and report on, as soon as venient.

☞ Trees by hundreds of thousands in southern Wisconsin were destroyed by ground mice during the snow blockade.

☞ We have received Mr. O. H. Townsend's Catalogue for 1881, consisting of 10 pages. He has supplies and bee-implements for sale at Hubbardston, Mich.

☞ The Bill against "Foul Brood" was passed by the Michigan Legislature, on the 5th inst., and now only needs the signature of the Governor to make it a law.

☞ Mr. B. Salisbury gives the following statistics: "At a meeting of the Southern Michigan Bee-Keepers' Association, held in Battle Creek last Wednesday, 39 bee-keepers reported as follows: Last fall 771 colonies; on May 11—325."

☞ Prof. A. J. Cook writes as follows: "Editor Weekly BEE JOURNAL:—Allow me personally to thank you for the communications from our venerable friend and the great apiarist, Rev. L. L. Langstroth. All that we can gather from his rich, ripe experience is most valuable. Let us hope for many communications."

☞ Mr. G. M. Doolittle is better. This intelligence will be welcome news to our readers. A postal card just received says: "After a short but *very severe* illness I am again about, although quite weak. Hard maples are in full bloom, with the mercury at 80° in the shade. Bees are prospering; I have bees in 72 hives yet, but shall double down to 40 to commence the season with."

☞ We give considerable space this week to the able article from the pen of Count Gaetano Barbo, President of the National Society of Bee-Keepers in Italy. It is not necessary to apologize for so doing, as it will be read with deep interest by all our subscribers, who will recognize it as a masterly production of a scientist of no mean attainments.

☞ We have received a letter asking "how would bees do in the northern part of Dakota, Minnesota or the Northwest Territory? Is there a supply of honey plants there, or are the winters too long for them to do well?" Will some of our subscribers in the localities mentioned be kind enough to answer the queries? We can only give conjectures, and these are not always reliable.

Retrospective and Prospective.

Until the founding of the AMERICAN BEE JOURNAL, some twenty years ago, but little thought had been devoted in this country to bee-keeping as an occupation, and still less to it as a science. True, many kept a greater or less number of "gums" or "skeps," and a few, comparatively very few, master minds had conceived rational scientific views regarding many of the internal mysteries of the hive; some had to an extent comprehended the physiological history of the honey bee, but they were so very few that their wisdom was almost covered with disrepute by the ignorant and superstitious ideas of the masses, who kept bees as did their great-grandfathers, and whose comprehension had only kept pace with their improvements. The master-works of Rev. L. L. Langstroth and the late M. Quinby gave rise to much thought and study, which in turn led to experiments, and these created the necessity for a periodical, in the columns of which new discoveries could be heralded, accepted theories be discussed, old prejudices be combatted, and apiculture be elevated to its proper position among the progressive sciences.

That much progress has been made during the twenty years of the BEE JOURNAL's existence all will acknowledge. Many doubtful problems have been solved, and new ideas promulgated; all the standard works on apiculture have been revised time and again, as published experiences have proven to the several authors that their books inclined to error, and none but the most conceited have dared to assume that they knew it all. In nothing, perhaps, has opinion been more divided than upon the subject of preparing bees for winter, and here, again, the BEE JOURNAL has fulfilled its mission in publishing the hundreds of letters giving the results of last winter's experiments—for mostly they were experiments. As we foreshadowed in our issue of February 9th, the winter has been disastrous alike to the veteran and the novice, the specialist and the amateur; where loss was least expected, it has been as heavy as where success was not anticipated. It has but demonstrated that no general method is *absolutely certain*, and to our mind it has proven that in the Northern States there is much less risk in a properly prepared cellar or bee-house, than in any other method in general use. Of course, there are anomalous exceptions, but they are not numerous enough to establish a rule.

While we fully sympathize with many whose losses have been peculiarly trying as individuals, we feel almost tempted to congratulate the bee-keeping fraternity upon the disasters of the past winter. We think we can see many ways in which good may arise from it. It will discourage and drive out of the business many laggards who have only kept bees because they had them to keep; who have kept down the price of good honey by selling their poorly-prepared commodity for what it would bring, because it had cost them nothing. This class of people will probably give it up, or adopt more progressive ideas. The thinning down of our numbers will also prove of great assistance to our Societies and Conventions in uniting bee-keepers upon the general issues: antagonism to adulteration; a reliable market for our products; uniformity in preparation for market; a good, living price for an honest article; a general dissemination of scientific and practical knowledge, and the cultivation of a feeling of fraternity among the bee-keepers of America. Should these results be attained, the experience and losses of the past winter, while causing temporary commiseration for a comparative few, will be a source of congratulation for all in the future.

Bee-keeping, heretofore, has been an occupation influenced largely by local and spasmodic causes. Two or three seasons of plentiful yield and good prices were sufficient to induce scores of unthinking persons to start in the business; if a good honey-flow rewarded their efforts, prices immediately declined—but if the season was poor, bees were disposed of very cheaply, or Provdence was depended on to protect the bees till a remunerative season should come. And this is the class of persons who have persuaded themselves that box hives are as good as any, and success in bee-keeping "depends upon luck." *They have mostly quit the business!*

On page 84 of the Weekly BEE JOURNAL for March, we indulged in some speculations regarding the prospects for this season, and the favorable outlook for an abundant honey flow. Our subsequent correspondence convinces us we were not over-sanguine. White clover was never more plentiful, and the sod is well matted; basswood buds are bright and green, and they lavishly promise, while wild flower plants exhibit a thriftiness seldom equalled. From the South come reports of gratifying honey yields, while in the Central and Northern States bees are thriving remarkably well, and vegetation everywhere, though tardy in starting, is making amends by its unparalleled rapid growth.

We estimate the losses the past winter in the North at over 50 per cent., but there will be larger gross receipts in cash if even only 25 per cent. of the bees are saved, than have been realized the past two seasons, as the honey flow will be abundant, prices rule high, and reckless producers out of the market. We cannot advise any one to go into the bee-keeping business—nor into any other—but we do say, if any one contemplates ever going into it as a specialty, they will never find a more encouraging time than *now*.

To our unfortunate friends we extend our sympathy—no, not sympathy, but encouragement. Fill up your hives immediately—build up strong; one or two failures should not, *will not*, drive you from a chosen occupation. Look well at every occupation; what one affords the facilities for retrieving losses? In what occupation can you engage where success is *more certain?*

"If at first you don't succeed, try, try again;
You will conquer, never fear, try, try again."

The following letter is from one of the progressive men of the age:

I have been very much interested in the reports giving the successes and failures in wintering bees the past cold winter. I fully sympathize with the unfortunate ones in their losses and disappointments. It is a hard blow to very many. Bee-keeping has its ups and downs, like all pursuits. The man that plants to-day is not sure of a crop of grain; he who rears up a flock of sheep knows not but that to-morrow they may be cut down by disease. But the old maxim is quite as true to-day as ever: "Nothing venture, nothing have." Though we fall to-day, we should spring to our feet to-morrow, and try again. Perseverance is the mainspring to success, and the man who has good hives and plenty of combs, can very soon work up a good yard of bees. Take courage; go ahead, and all will be well.

I put 90 colonies into a winter-house on the 22d of November; they had a few hours' flight on the 15th of March; put them out the 9th of April; found one dead and two queenless. Since they were put out two more have died, making, up to date, three dead and two queenless. I put the queenless colonies with the others.

I never had my bees, taken together, look better or stronger at this time of year. I have had orders for all of my bees, but sold only ten colonies. I can only say, respecting other bees for many miles around here, if reports were given they would about tally with the reports given in the BEE JOURNAL—very heavy losses. R. BACON.

Verona, N. Y., May 9, 1881.

We commend the foregoing sensible letter to those who are doubtful as to the future, and beg to assure them that they need pluck, more than sympathy. No one's loss, however great, has been as bad as it might have been.

Forcing Bees to Work in the Boxes.

Mr. J. W. Hinsdale, of Raleigh, N. C., under date of May 11, says:

"I have some 30 colonies, but cannot get the bees to work in the upper stories, though the colonies seem very strong, and there is a fine honey flow at this time. What is the best thing to do?"

The brood-chambers are too large; that is, the queens do not keep them sufficiently packed with brood to prevent the bees storing considerable honey there, and they become loth to leave the brood unless forced to do so. The best course to pursue will be to take out the outside frames, which you will find well filled with honey, and put division boards in their place; if any others are filled with honey take them out, extract the honey, and replace them in the center of the brood chamber only as fast as the queen can use them. By thus contracting the brood chamber, you will force the workers up in the second story before they have made preparations for swarming, and once there, they will be slow to encroach on the queen's domain in the lower story. The size of the brood chamber is the only tenable objection that can be urged against the standard Langstroth hive with ten frames, and we have found them none too many in breeding up, and easily lessened when the sections were neglected. Many of the most successful apiarists use hives holding only seven or eight Langstroth frames.

☞ The bee-keepers of Missouri will meet in Convention at Mexico, Mo., on June 2, 1881, at 10 a. m., and hold a session two days. Dr. N. P. Allen, of Smith's Grove, Ky., President of the North American Bee-Keepers' Association, is expected to be present to assist in organizing a Bee-Keepers' Association; other leading bee-men are expected, due notice of which will be given. The programme will be published in a short time and will embrace such questions as will be of interest both to the novice and practical apiarist. All are invited to partake of and assist in this much needed organization. Those that cannot come will confer a favor by giving us a communication on some subject of interest to bee-men. P. P. COLLIER, *Vice Pres.*
N. A. B. K. Association, for Mo.

All papers of Missouri please copy.

AMONG OUR EXCHANGES.

GLEANINGS.

☞ Mr. Geo. Grimm reports having "lost 35 colonies out of 431." Including the dwindling in spring he does not think it will reach 10 per cent. of loss. He then adds: "In my chaff-hive apiary (consisting of one colony) I lost 100 per cent.

He is Greatly Puzzled.—Novice says: —Neighbor Shane, with an apiary of about 190 colonies, has not lost to exceed 10 per cent., and wintered out-doors at that. The hives were ordinary Langstroth hives with chaff cushions over the frames. He borrowed one chaff hive from us, which wintered without a loss of over 2 dozen bees, and consumed much less stores than those in his other hives. Although he always wintered in cellars until of late, he now thinks he will winter out-of-doors next winter. I confess I am greatly puzzled.

BEE-KEEPERS' EXCHANGE.

Profit by Experience.—As the weak of all kinds, whether of men, animals or plants, are the first to succumb to disease and death, may we not console ourselves that the bees remaining after the recent severe winter are a hardy race, capable of wintering with less percentage of loss in future seasons, and are in addition a class of bees that will multiply rapidly and thus, very soon again "fill the earth?" The proverb says, "there is no great loss without some small gain." This we think is true. Undoubtedly many a shiftless bee-keeper will drop the business; others having lost all their bees will throw away their old appliances, and beginning anew will adopt a better class of hives and management; while others, having gained knowledge from the success of their neighbors in wintering, will more effectually protect their bees in winters to come. Like philosophers, we must profit by experience, hope for the best and prepare for the worst.

Increase Rapidly.—Owing to the great loss of bees this past winter there will be put forth an extra amount of energy in the direction of rapid increase of the apiary. Already inquiries pour in asking how best to restock the depopulated colonies. The requisites are, a few strong colonies, a lot of clean, dry, empty combs, or, better still, a liberal supply of Dunham foundation, hives so arranged that close-fitting division boards can be inserted, and time, knowledge and energy enough to perform all the needful operations at the right time and properly. To this should be added a bountiful yield of honey, after which we might reasonably expect 5 colonies to be increased to 50 good ones by fall.

Report of the Nellis Apiary.—Our own bees were removed from winter quarters on April 8. The loss at that time was about 15 per cent., and after a period of 2 weeks, from uniting and dwindling, the loss amounted to about 25 per cent. We think 2 or 3 colonies starved, not that they were so short of stores, but for some unaccountable reason, some colonies consume nearly twice as much as others, when the conditions and treatment are equal. The mice had evidently secreted themselves in the hives during the fall, and had made havoc in a few hives despite our efforts (partially successful) to trap them. We were diligent to contract the entrances in autumn, but the warmth of the hive and the cosy chaff cushions were a great temptation. Providence permitting, we will effectually exclude the little rascals another fall by the timely application of perforated tin to the entrances, that will allow the bees to pass freely, while the mice can only smell in.

Up to the middle of March the bees were very quiet and seemed to winter splendidly; later they were somewhat uneasy. Observation shows that the colonies worked for surplus honey have wintered well, while those used for queen rearing were the fated ones, the "tinkering" in fall being the probable cause of their failure. Pollen is now being gathered, and at this writing, April 25, the weather is warm and very dry. We earnestly hope that contrary to the past few seasons, we may get a damp, rainy spell in May, and dry, sunny weather in June, when the great white clover harvest comes.

BEE-KEEPERS' INSTRUCTOR.

Future Prospect.—The Editor says: —We have been using every effort possible to get at the mortality, and have, we think, arrived at a pretty fair approximation of the losses of the winter. We are able to make our estimates from reports of nearly 15,000 colonies reported to us and other bee journals. These reports are mostly from the Northern States, and show when taken in the aggregate a mortality of 55 per cent. We are satisfied however that the mortality is even greater than this, in the northern portion of the United States and Canada. We base our opinion on the ground of hundreds of small bee-keepers of whom we hear, but of whom we have no report, having lost all they had. Our conclusion is, therefore, after a full survey and investigation of the situation, that the losses north of the 38th parallel will be about 65 per cent. of the colonies placed in winter quarters, while many of those that survive come through very weak. South of this parallel we think 25 per cent. will cover the losses. Discouraging as this state of affairs appears, we are daily in receipt of information that bee-keepers are generally looking forward hopefully, with the full determination to make the most of their present resources, and to build up again as rapidly as possible. There appears to be a general feeling that we are going to have a good honey season, and while the amount of honey produced may not be as large as usual, better prices are expected. Many will no doubt run their apiaries more for increase than for honey....By close attention and judicious management the severe disasters of the past winter may be greatly overcome, and for the future turned to advantage, if the lessons we have learned from the past are not too easily forgotten.

MISCELLANEOUS.

King Birds and Bees.—The *Rural New Yorker* says:

We are of the opinion that the king bird catches not only drones but workers and queens also. Examination of the king bird's crop scarcely ever reveals the presence of bees except in such a condition as to be quite beyond identification. A gentleman once noticed a king bird catching bees and, on close observation saw small particles drop to the ground which proved to be both the bees' extremities, and he concluded that the bees were caught in such a manner as to secure the honey-sac only. If this be true, search for bees in the king bird's crop would be in vain.

Peach Trees Killed.—The New York *Express* says:

There is no hope any longer entertained by the fruit-growers of Delaware of any profit from peaches in that State this season. It is said that not in 25 years has there been a worse showing, and the belief is that a great majority of the peach trees have been killed, while all the rest have been so severely injured as to make them useless. If this be indeed true the loss will be very serious, for no less than $5,000,000 are invested in peach cultivation on the peninsula, of which more than half is invested in Delaware.

Bee-keepers will have lots of company in disasters this year, among fruit-growers, cattle-raisers, and farmers whose wheat winter-killed. But none who are progressive in any of these branches will talk of giving up.

SELECTIONS FROM OUR LETTER BOX

Cellars for Wintering.—About $\frac{2}{3}$ of the bees in this locality are dead; in fact all who did not winter in a good cellar have now no bees worth mentioning. The winter here is too severe for any kind of packing on the summer stands to be a safe manner of wintering bees. Dysentery and long confinement have caused the loss.

A. A. DECKER.
Granger, Wis., May 5, 1881.

Bees Successfully Wintered.—I have 47 colonies left out of 49; I wintered on the summer stands, with chaff cushions in upper story. Those now left are in splendid condition, being stronger than they were one year ago, and are now building up on fruit bloom. I think there has been a loss of about $\frac{2}{3}$ of the bees in this county.

JAS. A. NELSON.
Wyandott, Kan., May 7, 1881.

Well Done.—I have lost but 2 colonies out of 75; this is my first loss in wintering for 5 years. One starved and one had the dysentery. About $\frac{3}{4}$ of the bees in this locality are dead. I will send you a small crate of my foundation, which I want you to test by the side of the Dunham; I have no fear of the result.

D. S. GIVEN.
Hoopeston, Ill., May 9, 1881.

[As soon as convenient after it comes we will give it a *fair* trial and report the results in the BEE JOURNAL.—ED.]

No Loss in Winter.—This has been a very hard winter on bees; about $\frac{3}{4}$ are dead in this vicinity. I wintered 10 colonies in the yard and 30 in the cellar, and only lost one, which was caused by my closing the entrance of the hive and neglecting to open it when removing from the cellar.

THOMAS HEATON.
Moore's Hill, Ind., May 3, 1881.

Bees that are Stingless.—Will bees puncture grapes, is a question that has been discussed considerably of late. Now, as regards my 25 colonies of bees, I can put that question at rest—they will not puncture grapes, neither will they sting. In the language of Jim Fisk, "they are gone where the woodbine twineth." The majority of the bees that have passed through the winter in this vicinity are in the old box hives. I will make it as light as possible by averaging it. Last season was a poor year and I had plenty of bees; this year I have no bees and there is a good prospect for honey.

E. F. CASSELL.
Illinois City, Ill., May 2, 1881.

Out of the Woods.—My bees have wintered well. I put 166 colonies in the cellar last fall and now have 147 in good condition, and am out of the woods, for the fruit blossoms are just coming out. I use the 8-frame Langstroth hive.

J. F. SPAULDING.
Charles City, Iowa, May 10, 1881.

No loss without some small Gain.—My loss the past winter has been 42 out of 93 colonies and about $\frac{1}{2}$ of those remaining are very weak in numbers; but I am not discouraged, for although my loss is severe and the prospect for a honey crop almost none at all, I am not alone in my misfortunes, and I have the satisfaction of knowing that the scores of colonies of black bees which surrounded my apiary and made it almost impossible for me to get an Italian queen purely fertilized, are now almost a thing of the past. I shall now take measures to have all the bees in reach of my apiary Italianized if I have to do it for nothing, and there are other considerations which contribute to lighten the load of my woes. I winter on the summer stands packed in chaff. My hives face the east and stand in rows so close to each other that none but those on the south end of the rows are exposed to the sun during mid-day, and every one on the south end of a row and every one of several scattered over the yard and fully exposed to the sun are in good condition. Those in the rows starved with an abundance of honey in their hives.

GEO. M. PIPER.
Chillicothe, Ill., May 2, 1881.

Wintered Successfully.—I put 23 colonies of bees in my cellar on Nov. 11 and took them out April 18, all in good condition. You could not have told that they had been confined at all; all had either eggs or brood; they have not dwindled any other than those which die a natural death, which in some hives has apparently not exceeded the number hatched. As I have wintered successfully I wish to summer as well; please tell me how to prepare them to move them 4 miles over a rough, hilly road, to a small belt of basswood. The hives are 2-story simplicity, Langstroth frame, and both stories as full of bees as I can get them? In looking over my bees to-day I found capped drone brood in 3 or 4 colonies. I have been around among the farmers lately, buying combs to melt into wax for foundation, and find the mortality of bees as follows: Visited and heard direct from 15 bee-keepers with a total of about 114 colonies that they attempted to winter, of which number only 18 or 19 are now living, and several of those are weak. I have also heard from several experienced apiarists, who have lost from $\frac{1}{3}$ to $\frac{2}{3}$.

JAMES NIPE.
Spring Prairie, Wis., May 7, 1881.

[In early morning, while cool, put a bottom strip in the hive with notches for bottoms of frames, or slip down strips to prevent frames from shaking; then tack down ends of frames. In the evening put wire cloth or mosquito netting over the portico, and move them at night, so as to keep them confined as short a time as possible. Care must be taken that that they do not get excited and melt down the combs.—ED.]

My Bees in Good Condition.—I put 17 colonies into the cellar last fall and had 2 die, they were queenless. I have 15 good strong colonies left, for which I am satisfied. They were confined 148 days. I use the Doolittle hive and pack as he does. It has been a very hard winter for bees; I think about $\frac{2}{3}$ that were in this county have died; those that were put in cellars wintered best. You can put me down for a life subscriber for the BEE JOURNAL.

CHARLIE W. BRADISH.
Glensdale, N. Y., April 30, 1881.

How I Packed in Chaff.—I put into winter colonies 72 colonies, and lost one by dysentery and 5 starved. I doubled up some weak ones and now have 58. I have a separate stand for each hive made by taking a 2x4 scantling 2 feet 2 inches in length, and 4x8 the same length, nailing on boards 3 feet long, putting the wide piece behind, elevates the stand 4 inches, on which I place the hive for the summer; I use the Langstroth hive. In the fall, as soon as the honey flow ceases, and before it gets cold, I take a box 2 feet high that will fit the stand; it is without bottom or top, the foundation answering for a bottom; I place it over the hive, leaving 4 inches space for chaff. I then put a 6 inch block under the back of the hive; that leaves a chance for packing under the hive. Taking off the honey boards I put on a box that will fit the hive; the box is 4 inches deep with wire cloth on the bottom, putting in burlaps to keep the litter from the bees, then filling with cut straw. The cap above the box is filled with straw. I have a hole through the cap on each side covered with wire cloth to keep out the mice and let the foul air pass off. In the front I have a spout 10 inches long, made by nailing 4 pieces of 1 inch board, 4 inches wide, leaving an entrance 2x4 for the bees to pass to the hive; on the end of the spout I have a door, hung with one hinge, that I can close in cold weather. By running a block in the spout up to the hive, you can give them as small an

entrance as desired. The cover of the box should be made to keep perfectly dry. By wintering in this way my bees come out clean. I weighed all of my hives last fall to ascertain the amount of honey; they had from 13 to 28 lbs.; the one that died of dysentery consumed 26 lbs.; others that were soiled consumed in like manner; those that came through all right consumed the least honey.
GEO. WICKWIRE.
Weston's Mills, N. Y., May 6, 1881.

The Winter and Bees in Maine.—After reading so much about disaster among bees elsewhere it is encouraging to know that in this part of Maine we have done well. My bees wintered well and are in good condition. I have heard of but one colony here that is lost, and that had no care or protection. It has not been colder than 8° below zero here; cold weather commenced early and continued until about February 25, when we had a rain, which, with the warm sun, took off the snow, and gave the bees a cleansing flight. I like the chaff hive, either for wintering on the summer stands or in the cellar; it keeps them dry and warm. The BEE JOURNAL is a welcome visitor—the more I read it the better I like it.
A. F. MILLER.
Camden, Maine, May 6, 1881.

Only 7 Saved out of 140.—I commenced the season of 1880 with 93 colonies; the honey season was late, none being stored until about June 20; I increased to 140 by the "shaking off" process, making 1 new colony from 2 old ones, and a few natural swarms that came out from those very strong, although I examined often and destroyed the queen cells to prevent increase. I extracted all the white clover and basswood honey; all honey left for wintering was gathered after July 25. All were very strong in numbers and they soon filled up the hives, so that I had to extract the fall honey from some. Our first frost was on Aug. 17, which nipped buckwheat and fall blossoms and checked the flow of honey; still they gathered more than they used. On Oct. 16 the weather became cold and after that the bees did not fly. I examined them on Feb. 1 and found 3 dead, and many were getting very uneasy; by March 1 only 88 answered to the usual rap; on Mar. 6, down to 62; on the 15th, to 55; these then had a flight, but many were lost on the snow, and by the end of the month only 42 remained. The first week of April was very cold and unfavorable, and by the 10th only 12 remained, and to-day only 7 survive out of the 140; a few bees are left in some of the hives, but they do not count anything; all had plenty of honey. Now I think all, or nearly all my bees had as much unsealed and late gathered poor honey as they would consume for a month after they were confined to the hive, and if they could have had a flight early in November all would have been well. I winter on the summer stands and in different hives, some being double and having 4 inches of sawdust all around them; the bees in some of these double hives were the first that died.
GEO. GARLICK.
Warsaw, Ont., May 6, 1881.

Abnormal Swarming.—The Weekly BEE JOURNAL comes regularly to hand. I am well pleased with it and would not be without it for twice its cost. I like to read the articles of Messrs. Doolittle and Heddon. I think they are both earnest in what they say, and hope they will continue from time to time to furnish us with their interesting articles on bee-ology. While working close to one of my black colonies I noticed a small cluster of bees on a piece of plank lying in front of the hive directly under the alighting-board. I was a little curious to see what they were doing, and was astonished to find the queen; she was so quiet that at first I thought she was dead, but she was alive and the bees were in a circle around her caressing her and offering her food. On opening the hive to replace the queen I found everything all quiet, but immediately on dropping the queens on top of the frames the bees attacked her as they would a stranger. I immediately ran and lit my smoker and smoked them loose, covered up the hive, and in about 2 hours after on examining the hive found all quiet, and the old lady apparently following her usual duties as though nothing unusual had happened. What was the cause of her leaving the hive and brood in this manner? The hive contained only about 4 or 5 frames of bees and brood. I had them closed up with division boards. The queen had a clipped wing, otherwise she might have left for good.
W. T. CLARY.
Claryville, Ky., May 9, 1881.

[It was an attempt at abnormal swarming. Those bees which you found in the hive had undoubtedly come out with her, but when she dropped to the ground lost sight of her and returned to commence the work of rearing a queen. Of course they were loth to accept her till after smoking.—ED.]

Bee-Keeping in Missouri.—I have 100 hives—56 containing bees in good condition, the rest empty, ready for the swarming season. I prefer natural swarming for increase. My hives are 10 inches above the ground and 10 feet apart each way, located in a locust grove of 60 trees 5 or 6 inches through, tops about 12 feet high; 3 of these trees were struck by lightning; I do not know whether it is the electricity in the bees, or the locust trees that attract the lightning; or either of them. There is heavy timber close by. I have lost 4 colonies; they were moved to another part of the yard soon after their first flight. There has been great mortality among the bees in this county during the past winter, but principally with those in box hives or log gums. Great ignorance prevails here among those keeping bees; they will yet be compelled to discard these "old fogy" ideas, sooner or later, for scientific advancement is rapidly gaining ground west of the Mississippi.
Benton, Mo. J. SMITH HEAD.

Plenty of Honey but few Bees.—It is hard to make a report when our efforts have not been successful. I had 70 colonies last fall, now have 9 or 10, and most of them are weak; they all had plenty of honey, but long confinement did it. Our first natural pollen came April 15. I think ⅔ of the bees in this vicinity are dead. I shall try again but will have to go slow; I shall buy a few queens from those who don't raise dollar queens. It may be profitable to dollar queen breeders to rear them, but it is loss to the purchasers. I thank God for the men who are oppcsihg cheap queens, glucosed honey, and other frauds which are doing great injury to bees and their true friends. I like the BEE JOURNAL, and want to see the subscription list large enough to sustain it well.
D. G. PARKER.
St. Joseph, Mo., April 21, 1881.

No Loss in Wintering.—I finished putting out my 240 colonies on April 25. They are in prime condition with only 8 dead ones (4 starved and 4 destroyed by mice). Two of my neighbors wintered 100 and 105, respectively, without losing any. I like a solid cold winter for bees.
IRA BARBER.
De Kalb, N. Y., May 2, 1881.

What is Required.—The article on page 99, by A. Webster, is worthy of careful consideration, and if a hive-frame or system of bee-management can be established in exact accordance with the honey bee, it will be a grand success. Let us have a hive in which we can control the colony, be it small or large; in which we can produce extracted or comb honey in the best possible shape for market; that the honey can be taken from the hive without disturbing the brood nest; that the frames can be lifted out without sticking or scraping; that swarming may be encouraged or prevented, as desired; that bees can be safely wintered on the summer stands on the smallest possible amount of honey, without chaff, sawdust, lime, or any other packing (all such prove a deficiency in the hive); that the bees can keep cool in during the hot sultry days of July and August, and one in which they can keep warm when the mercury marks 20° below zero; a hive that is cheap and simple, and that can be made with a saw and hammer. Let us have no hobbies to ride or scissors to grind. Such a hive will be universally adopted. Movable frame hives have been in use long enough for all their good qualities to be known, and the size of frame best adapted for summer and winter use. Let the entomologist, the honey producer, the queen breeder, and the hive maker reason together, and the result ought to be what is wanted.
J. S. DUNCAN.
Browning, Mo., April 18, 1881.

Wintered in the Cellar.—I put 119 colonies in the cellar Nov. 15, and took out alive 107 April 16. I left 6 out for want of room, all of which died, of course. Those taken from the cellar were put on the summer stands between 7 and 9 a. m., without reference to their former location. The caps were left off till towards night and put on while the bees were out; the result was a dozen colonies went in with others (all had plenty of honey), and now, after robbing, etc., I have 89 colonies in the best of condition. My loss was wholly the result of carelessness. The cellar was 8x16, partitioned off from the family cellar by sheeting paper. But a few nights in the winter that the outer door was not opened to cool the atmosphere. In March I made a "blower" so that I could cool them at any time. My bees consumed from 8 to 10 lbs. of honey on the average in the 5 months. I have had good colonies winter well on 4 lbs.; some used 18, but generally 6 to 10. About ⅞ of the bees are probably dead in this locality. Will Hiram Roop please say why he would rather have 100 colonies wintered out of-doors than 150 in the cellar? Do queens go out with the bees on their first flight? How can I keep a queen for future use?
THOS TRACY.
Nashua Iowa, May 1, 1881.

[Queens do not go out with the bees on their first flight. If your bees are allowed to swarm naturally, you cannot keep the queen without clippingg one wing. By dividing, you can save her by removing to the new colony, or depleting the colony in which she remains.—ED.]

Good Prospect.—The winter has passed and so have many of the bees. The past 2 seasons were a total failure. There are but 6 colonies of black bees left in this vicinity; the Italians have held their own better. I doubled down last fall from 95 to 70 colonies; wintered them in a house apiary; put them in the house Nov. 14 and took them out March 20; I found 4 weak colonies, all dead now; 3 queenless, 2 with drone laying queens, and several weak in numbers. I doubled down to 56 which are all in fair condition. Fruit trees are beginning to bloom; if we have fair weather now I think we shall have a fair crop of honey, for white clover promises to be abundant. When I read the reports in the JOURNAL I feel that I have reason to be thankful. I am now engaged in other business, so if it is a good season I shall have all I can attend to, and if it is a poor season I have enough.
J. M. VALENTINE.
Carlinville, Ill., May 4, 1881.

Loss One in a Thousand.—Our terrible winter is nearly ended. It has been more fatal to bees than any for many years. Nearly all who had a dozen or so of colonies have lost all. Judging from the reports in the JOURNAL those who wintered out-of-doors will be trying something different, and I am rather glad that they have had something to open their eyes. It may be all right to winter out in the cold, but to me it has the appearance of barbarism, and I cannot see how anyone with the least kindly feeling for the bee can sleep on those cold dreary nights, when they must know their bees are having a death struggle with the cold. If the winters' losses shall teach a lesson to such men, then all the bees have not died in vain. Another reason why people should house bees is, it pays; much less honey is consumed in a warm room than out in the storm. The walls of my bee house are 26 inches thick, filled in with tan bark and sawdust, with double doors and ventilators—ground is covered several inches with dry sawdust, to take the moisture. The bees were kept in 160 days this winter with no signs of dysentery. I took about 950 colonies out of my old apiary April 9; all were alive, though one had but the queen and a very few bees, and soon perished. Of about 44 colonies bought last fall in bad condition, and kept in another room, I lost 7. My bees are stronger than ever.
P. T. GRIFFITH.
Danby, Vt., April 19, 1881.

Cellar Wintering.—For the past 5 years this has been always satisfactory with me, although loss from dwindling always averages from 20 to 30 per cent. I have now 50 good colonies out of 70 last fall.
J. C. THOM, M. D.
Streetsville, Ont., May 10, 1881.

A Loss of One-third.—About Nov. 15 I packed with chaff 30 strong colonies on the summer stands—part were in hanging-frames and part in Quinby's standing frames. I have 20 now. I see no choice between the different styles of frames for wintering. I also had 12 nuclei, each with from 2 to 4 frames and about a quart of bees; of the 3 I packed in chaff on the summer stands there are but 2 weak ones left; the others I put in the cellar without packing —2 or 3 in a hive, with division boards between. On April 15 I took them out and 5 were alive, but 2 dwindled away. The other 3, I think, will build up. My cellar was damp.
ROBERT DOWNS.
Naugatuck, Conn., May 6, 1881.

Experienced Bee-Beepers.—While a large percentage of the bees in this locality are dead, experienced bee-keepers who had their bees in cellars have lost but few, and their bees are now doing well.
J. DEWAR.
Tiverton, Ont., May 10, 1881.

Good.—From 90 colonies placed in the cellar Nov. 12 I have 82 in fair condition. I estimate the loss in this locality at 25 per cent.
W. H. FLETCHER.
Sauk Rapids, Minn., May 2, 1881.

Heavy Loss.—Mr. Knowles and I had about 45 colonies each last fall; now he has 5 and I 6. All were packed in chaff. Nearly all the bees in this locality are dead.
R. WALTON.
Industry, Pa., May 7, 1881.

Lost 2 out of 7.—I have lost 2 out of 7 colonies in wintering; the cold came on last fall before I was prepared for it, and I left them unprotected; the other 5 have now sealed brood and I hope are all right. Can I hive my new swarms on those old combs this spring? they have each about 5 lbs. of honey in the hive and I have no extractor. A neighbor of mine has half a dozen colonies in box hives; the back of the hive is hinged and the brood chamber closed in with a pane of glass; about the first of March when I saw them I found one of them with the glass out of the brood chamber, and the back of the hive so swelled and warped that it would not close within 6 inches, leaving one side almost wholly exposed to the weather. I was told that they had been so all winter, and yet that hive contained the best colony in the lot, and on April 1 the bees were carrying in pollen lively. The combs were as bright and fresh as when first made. In the surplus chamber were 2 large boxes that the owner did not dare to remove, on account of the bees flying out front and back. Perhaps they kept that warm enough to live in during the winter, and so were not obliged to go on the other edge of the combs for food. I am of the opinion that you "builded better than you knew" when you made the JOURNAL a Weekly; it has already become a necessity, and the bee-keepers of this country, as well as Europe, appreciate it.
C. W. DOW.
Lynn, Mass., April 18, 1881.

[Yes; those combs are as good as so much gold. Let them dry thoroughly before using.—ED.]

SPECIAL NOTICES.

☞Single copies of the JOURNAL are sent postage paid for 5 cents each.

◆

☞Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

☞The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

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☞When changing a postoffice address, mention the *old* address as well as the new one.

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☞We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

◆

☞Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

◆

☞We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

◆

A Safe and Sure Means of restoring the youthful color of the hair is furnished by Parker's Hair Balsam, which is deservedly popular from its superior cleanliness. 18w4t

◆

☞Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

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☞Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

☞The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

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PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

◆

☞At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

◆

☞It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

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STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., April 30, 1881.

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	Publishers' Price.	*Club.*
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1881. *Time and Place of Meeting.*

May 10, 11—Eastern New York, at Schoharie, N. Y.
W. S. Ward, Sec., Fuller's Station, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.
12, 13—Texas Bee-Keepers' Association, at McKinney, Collin Co., Texas.
W. R. Howard, Sec., Kingston, Hunt Co., Tex.
17—N. W. Ill. and S. W. Wis., at H. W. Lee's, Pecatonica, Ill. J. Stewart, Sec.
17—N. W. Union, at Hastings, Minn.
F. B. Dorothy, Sec.
19—Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct. 11, 12—Northern Michigan, at Maple Rapids.
12—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

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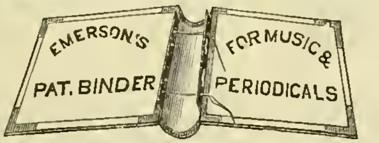

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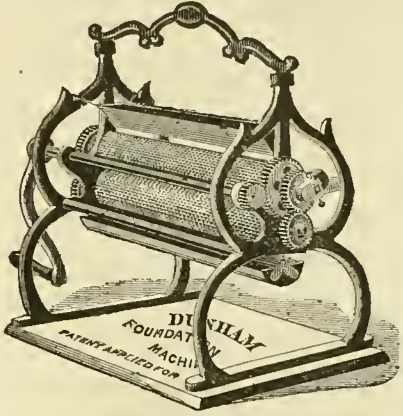

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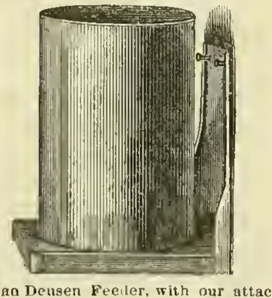

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☞ Programme of the Northwestern Bee-Keepers' Union, to be held at Hastings, Minn., May 17, 1881:

1.—Address of Welcome, by J. N. Searls.
2.—Reports of committees.
3.—Reports from all—number, kind and condition of bees.
4.—A paper by Pres. A. Tidball, on honey-producing plants and flowers.
5.—A paper by Dr. P. Barton, of St. Paul, on honey as food and medicine.
6.—Apiary culture and our fairs, by Hon. William Avery, of St. Croix Falls, Wis.
7.—A paper on sales of honey, by F. B. Dorothy, of Taylor's Falls, Minn.
8.—A paper on wintering bees, by L. Day, of Farmington.
9.—Progressive bee-culture, by J. G. Teter.

The above subjects will be open for discussion. In addition to the above, the following subjects are suggested:

1.—Essential properties of a good bee hive.
2.—How to prevent and cure foul brood.
3. How to prevent spring dwindling.
4.—Comb Foundation, with dividing and natural swarming.

Appointment of committees.
Election of officers. Adjournment.

☞ All bee-keepers are cordially invited. Entertainment free. F. B. DOROTHY *Sec.*,

* * *

☞ The Annual Meeting of the Society for the promotion of Agricultural Science will be at Cincinnati, on Tuesday, Aug. 16, 1881, the day preceding the sessions of the American Association for the advancement of science.

* * *

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., October 11 and 12, 1881. DAVID EISHELMAN. *Pres.*
O. R. GOODNO, *Sec.*, Carson City, Mich.

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Livonia Station, N. Y., April 11, 1881.

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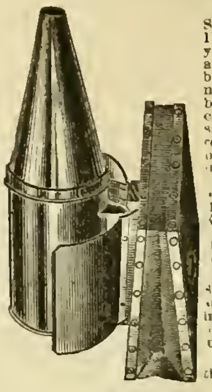

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CONVENTION NOTES

N. W. Wisconsin and E. Minnesota.

Pursuant to call, the bee-keepers of Northwestern Wisconsin and Eastern Minnesota met in convention at La-Crosse, Wis., on Tuesday, May 10, 1881, with Vice President E. Markle in the chair.

The number of colonies lost last winter was 403, and from the different opinions expressed, it was the general impression that bees will winter best in a cellar.

L. H. Pammel read a paper on the "Progress of Bee-Keeping."

W. Lossing followed with an essay on "Wintering Bees."

Mr. Salzer did not know what was the cause of losing so many bees last winter, but thought it was impossible to lose so many unless they froze.

Mr. Markle said those who had wintered in cellars had lost but few compared with the loss on summer stands. Most of those lost on the summer stands were smothered.

Mr. L. S. Soules said that as bees dwindled so much in winter, bee-keepers would have to sell their bees by the pound.

The following is the address of M. A. Gill, Viola, Richland Co., Wis.:

In giving my ideas on the many vital questions you have so wisely chosen for discussion at this convention, I do not expect or claim to offer any rule which is infallible. I do not wish to array myself against the mighty march of progress, that is daily evolving new and valuable lessons in this, our chosen science; all that I can hope for is to be privileged to drop, perchance, some single thought, whereby some member of the fraternity may be benefitted. I will therefore comment briefly upon and review the several questions before this convention.

1. Bees that are each and every one armed sentinels against every discourteous intrusion, that are vigorous in protecting their hive against the moth, that bear their loads of honey right up to the very entrance instead of gyrating in front of the hive, that have many ragged winged veterans among the working force, which denotes hardiness and longevity (the latter characteristic I regard of paramount importance)—such bees I consider as possessed of superiority as between colonies of the same race and bees of whatever race, possessing the foregoing requisites, I look upon as superior.

2. I claim that in any locality north of parallel 40, cellar wintering is preferable from the fact that if any protection is necessary that method which seems the most perfect and entire protection is the best, and we should endeavor to preserve, as nearly as possible, that temperature which will keep the colony in its normal condition; a condition which in my mind cannot be secured on the summer stand (no matter how thorough and complete in its details is the method of packing adopted) with the mercury ranging as it has for the last 60 days in our State; I would have it understood, in all that the terms imply, that a cellar should be perfectly quiet, pure and dry, and all light excluded.

3. With the above conditions fulfilled, upward ventilation more than a quilt would give, I think needless, but if on the summer stands, direct upward ventilation or plenty of absorbent material I think very necessary.

4. Attendant upon and owing to the foregoing method of winter protection, I consider from 12 to 14 lbs. of good honey sufficient to carry any colony from the 20th of Nov. until the 1st of April, but if on the summer stands, would consider 25 lbs. as no more than an ample store for the same length of time; after that time, each would consume comparatively the same amount.

5. The smallest quantity I ever knew to be consumed was 5 lbs. This was in the winter of 1879-80, from Nov. 20 to March 20. This was by a colony of Italians of my strain of small eaters, which I consider a very desirable trait, and one as distinct as that of beauty, docility, or honey gathering, and which I firmly believe can be induced by selection and breeding as much as any other quality. For who has not noticed in families of bees (as well as of mankind) that some will live and thrive—by their habits of economy and frugality—upon what others would waste by their gormandizing and profligate habits.

6. The great mistake of beginners is getting too many bees before acquiring a thorough knowledge of the business; another mistake is often made by allowing a too rapid increase which will (to the novice) invariably result in disaster.

7. Having some experimental knowledge I would say to the beginner, be cautious; first study well some standard work, and by no means think of doing without a bee-keeper's periodical of recognized merit. Next buy 2 or 3 colonies of bees (not more), and buy none but the best, adopt some good standard hive and get all the honey you can and but little increase until you find out whether or not you are a bee-keeper.

8. In commenting upon this question I have only to say that I never had occasion to winter on any substitute for pure honey; have ever made it a practice to allow my bees ample stores for even an emergency while I take what remains. I endeavor to place the honey in such shape in the hive (for this the Gallup frame answers the purpose best) that the late honey, such as buckwheat, golden rod, aster, etc., may be consumed first and while the bees are in their most healthy condition, while the basswood and clover will come in toward spring and serve as a change of diet or alterative, which is of considerable importance after their long confinement.

9. On the best method of swarming for Wisconsin there are many different opinions and many phases of the question, and the matter must necessarily be governed by circumstances. For the specialist with but one apiary I would advise well controlled natural swarming, while if he should own an apiary away from home nucleus-swarming might be practiced to great advantage by building up nuclei and interchanging between the locations, thus avoiding the difficulty so often met with of a return to the parent colony. But in the case of many (myself included) who are engaged in a joint business, farming and bee-keeping, it is impossible to give the latter one's whole attention, and for such, well conducted artificial swarming is the most desirable.

10. I would not advise dividing, only in exceptional instances, before the clover season, as it is liable to thwart the best chances for the basswood yield in those sections where it is the chief source of surplus. In many parts of our State white clover is sadly wanting as compared with the older States, but we look forward with hope to the time when our hill-slopes, valleys, pasture lands and waste lands shall bear this beautiful and useful plant in bounteous profusion.

11. In regard to melting up old combs for foundation, I think it should not be practiced with straight worker comb. I have sometimes thought that for the different uses of brood combs those old stiff ones were the best, however their utility is certainly of longer duration than many suppose.

12. The use of division boards as a means of enhancing our surplus is to me of great importance, and not only its early use in the hive proper, but its use in the super in getting the bees started where frames are used that hold 2 tiers of sections or for starting on 2 or 3 combs for the extractor, throwing back the mat or quilt and putting in the follower, and spreading the comb as fast as wanted until the entire super is occupied, when everything around the hive will soon be on a boom.

13. I do not think basswood injured; it being a forest tree and indigenous, why should it kill any more than the bloom of the maple or any of the different varieties of salix.

The following questions were taken from the question box:

What is the origin of the Italian bee?

Are bees taxable property; and if so, how much per colony?

In answering the first question, Mr. Soules said that the Rev. Mr. Langstroth, Mr. Jones and others had come to the conclusion that the Italian bee was a hybrid of the Cyprian and black bee.

Mr. Pammel said the Italian bee was an offspring of the Cyprian, since its shape and general structure indicate it.

Mr. Lossing said they were a distinct race, as the saddle found on the Cyprian was not to be found on the Italian.

Mr. Pammel said that as a proof of his statement, every close observer had noticed the great difference in our home-bred Italians and those imported. A few years more and we will have a distinct race, if the rule of selection of the best and "survival of the fittest" be practiced.

Mr. Markle thought Mr. Pammel was laboring under a great mistake. In regard to the second question, he thought it an insult to tax bees, since he could not tell how long he could own them, or whether they would ever give him a profit.

L. S. Soules said he did not know how they could be taxed, since they are not personal property.

Mr. Lossing thought it unjust that some bee-keepers were taxed while others were not; if they are taxable property he would be willing to pay.

Mr. Salzer said they should be taxed, since they are personal property, just as are the horse and cow, and the profits reaped therefrom are just as large.

Mr. Markle. If they are taxable, why not tax the trout in a man's pond; it would be equally absurd.

Mr. Pammel. As bees are in every sense of the word personal property, they should be taxed, one and all.

Mr. Jaques said as his bees had been taxed while others had not, he looked the point up and found that bees, according to a general law, are not taxable property.

R. A. Morgan, Arcadia, Wis., in reply to the question "does it pay to melt up old combs and use foundation," said: I say it does. But what I may say, or what the best of bee-keepers may say, is not now believed unless proved by actual demonstration; hence I will give the following formula, which I think is not overdrawn:

1. I find about 15 per cent. of all old combs moldy and about 5 per cent. cracked or twisted out of shape.

2. We will suppose that the cost of filling a hive with new foundation is 50 cents, and that honey is worth 10 cents a pound, we lose what is equal to one good day's work for the colony or (2½ lbs. of honey) 25 cents to say the least, which is 50 per cent. of the foundation by using old combs instead of foundation; the cleaning of the combs is worth at least 5 per cent. of the foundation.

3. The old combs to melt up are worth 25 per cent. of the cost of foundation, making in all 100 per cent. or the whole cost of foundation. This does not take into account the waste and expense of keeping combs over, the number of bees killed or disgusted by having old combs put into the hive or the increase in wax that the bees make by building out the foundation, nor the time lost by the queen not accepting old as readily as new, and sometimes not at all.

But while we bear this in mind we must not think that there is no profit in using old combs; on the contrary, old combs may be used with great profit, but comb foundation with still greater profit.

But as I cannot explain in detail here how I arrived at these figures suffice it to say that I arrived at them by actual experiments, which experiments are subject to conditions, such as climate, weather, kind of comb used, etc.

I think it but just to say that to my knowledge the Dunham foundation is the best in use.

The Convention adjourned to meet pursuant to the call of the President.

JAMES MANCHESTER, *Pres.*
L. H. PAMMEL, JR., *Sec.*

Eastern New York Convention.

This convention was held at the Schoharie Court House. N. Y., May 10 and 11, 1881.

President A. Snyder being absent, at 2 p. m. the meeting was called to order by the Secretary. W. L. Tennant was elected President *pro tem.* Mr. Tennant then delivered a short address, full of practical interest to bee-keepers.

W. D. Wright, N. D. West, I. Markle, Geo. Van Wie, and M. Snyder were appointed a committee to select questions for discussion.

Question: "Is it necessary to give bees upward ventilation in winter, if in frame hives in cellars with temperature at 45°?" The general opinion was in favor of wintering in cellars with upward ventilation, but not enough to cause a draught through the hive; and that bees should occupy 7 spaces of comb for successful wintering.

The evening session convened at 7 p. m., and had an interesting meeting full of interest to bee-keepers.

SECOND DAY.

The meeting was called to order by President Snyder, at 9 a. m. The following were elected officers for the coming year:

President, W. D. Wright; Vice-President, M. Snyder; Secretary, N. D. West; Treasurer, W. L. Tennant.

The next meeting will be held at Knowersville, Sept. 27, 1881.

It was resolved that each bee-keeper present should in the afternoon hand in their reports for the last year, but they failed to do so.

The Secretary read the following from J. H. Nellis, Canajoharie, N. Y.:

The past severe winter has doubtless made sad havoc in many apiaries and, it may be, has well nigh discouraged many. Here the theory of "the survival of the fittest" will be exemplified, and those who possess pluck will, with the plucky bees that "pull through," make a grand success in the future. Study hard to learn the causes of loss, for we all must realize that if the losses of winter can be avoided we can make bee-culture profitable, and we hold that nowhere can more accurate information be obtained than from a careful comparison of facts, circumstances and conditions, especially between the extremes of success and failure, which honest men seeking for truth can elucidate at our Bee-keepers' Conventions.

Compared with the matter of successful wintering, all other points of discussion fall into insignificance, unless perhaps the matter of creating a solid basis for the honey market. This will be done largely in the future in 3 ways, viz.: Create and maintain a home demand, avoiding as much as possible the crowding of your product upon a centralized market where it is handled by commission merchants. True, you will learn of a few getting fancy prices for their crops when so handled, but realize that favorable conditions, as being put on the market very early, or being of gilt edge quality, or there may be a little favoritism shown, or is it not possible that a few lots are accounted for at fancy prices in order to allure consignments? Beware of all these we say.

Secondly. Be sure your packages are of popular size and of fine appearance for box honey.

Thirdly. Extracted honey can and will find large sales at fair prices, put up in cheap tin packages, varying from 2 to 50 lbs. in weight. These can be shipped at cheap rates, are useful to the consumer, are not expensive to the producer, are not subject to breakage in shipping, and finally, are common sense in themselves, which latter quality will make a success of any article or man when possessed..... J. H. NELLIS.

A vote of thanks to Mr. Nellis for his able essay was unanimously carried.

Question: "What are the requisites for successful wintering?" This was answered by all as follows: Plenty of young bees and honey, also a good cellar or frost-proof repository, and the bees should be put in before there is frost in the hives.

Question: "Do bees need water while wintering in the cellar; if so, is the condensed vapor arising from the bees sufficient, or should they be supplied with fresh water?"

Mr. Boomhower said: Bees do not need water in winter, the vapor arising to the top of the hive is sufficient and good for this supply; I have tasted of it many times and found it good and sweet. I winter in a clamp—no ventilation at the bottom of my hives; I put on a piece of factory cloth covering the whole top of the hive, I then put on the honey board, so as not to cover the whole top. I examine them often and if any are uneasy I shake the drops of water on the honey board down upon the factory cloth; I sometimes sprinkle them with fresh water; they will come up and eat like pigs and be quiet. I winter very successfully.

J. G. Quinby winters his bees in box hives inverted, without water.

S. Vroman never tried water but thinks the vapor of the bees gives all the water needed; he does not disturb his bees in winter quarters; he thinks he would prefer water to honey for feeding to stimulate breeding in February.

W. Tennant thinks bees do need water when wintered in the cellar; he has been very successful in wintering when he used it; he said he had some box hives inverted one winter and he sprinkled water on them with his hand; they took the water freely; they kept quiet and bred in the cellar and came out the strongest of any he ever had.

J. G. Quinby keeps his bees dry and gives a large amount of upward ventilation. He winters best in this way and never gives them water.

G. Van Veris: No water is needed.

President Wright was not in favor of giving water.

In the afterooon the meeting was called to order at 1 p. m. and the following discussion ensued:

Question: "What is the cause of the so-called dysentery?"

The President indorsed Mr. Heddon's theory and thought it was the most plausible as the cause of dysentery.

W. Tennant thinks G. M. Doolittle is correct; he uses his name frequently when speaking and indorses his writings.

S. Vroman thinks that cold is the cause.

G. Van Veris: cold and dampness.

A. B. Simpkins: I believe nearly all the bees that die have the dysentery.

The following essay was read on

Spring Management.

All experienced apiarists well know that this is an all-important subject. All depends upon the bee-keeper after the bees are wintered to bring them through the coming spring, and he must determine whether they will be a success or a failure.

Two practical points must be considered: First, to know the exact condition of the bees; second, after knowing their condition to determine just what they require to bring them through strong and ready for business. In trying to find out their condition, see that they have plenty of sealed honey, and the main point of all, a queen—not a poor, shriveled up object, that might never be capable of doing the duties of her majesty, but one that looks as if she will be capable of doing her duty under all circumstances. If you should find a colony queenless unite it with some other weak colony, if you have any in your yard. By uniting 2 weak colonies you can make quite a good colony of them. Here is where bee-keepers make their mistake: they will try and nurse along a weak colony thinking they will have so many more colonies to gather honey and the result is they will hardly gather honey enough for their own use the coming winter, where, if they had united 2 of those weak colonies in the spring they would have gathered quite a surplus.

The next necessary step is to keep the bees confined on as few combs as they will cover; the object of this is to keep as much heat as possible confined in the cluster for the benefit of brood-rearing. To do this remove all combs not occupied by the bees, leaving both sealed honey and empty combs necessary for the brood nest; put all combs taken out where it is dry, for future use. After removing all surplus combs, have two division boards manufactured out of some thin boards about ⅜ of an inch thick, and have them so that they will fit closely on all sides; put one on each side of your frames, thus closing up on both sides of the brood nest making it the same as if your hive was made to fit the size of your colony, thus your bees will not have any unoccupied space to consume their much needed warmth, for plenty of warmth is the success of spring management. It is also quite necessary to put some chaff on both sides of the brood nest, and, in fact, in every unoccupied space about your hive, as it will keep out the cold, bleak winds, and help to generate warmth. After you have your colonies all in this condition and there are any that require feeding, I should advise some kind of top feeder, that is a feeder to be placed on top of the frames right over the brood nest, and feed them, as they require it, some good white sugar made in a thin syrup, or honey if you have it, and by all means do not use any glucose or grape sugar, as it is a nuisance and not worthy the attention of any bee-keeper. There is nothing better than good sugar or honey; it may cost you a trifle more, but you will find it the cheapest in the end. My reasons for not using grape sugar are, I have found that it hardened in the cells so that the bees would not remove it, and it hindered the queen in depositing her eggs in them, thus making the combs almost useless. I have known it to cause dysentery.

You will find it necessary to examine your colonies about twice a week and as fast as the queen fills the combs with brood and the bees can cover them, supply them with another frame of empty comb or foundation, putting it in the centre of the brood-nest, thereby increasing the size of the brood-nest and giving the queen more business in rearing. Bees I have often given two frames of empty combs in a week, and had them filled with brood. It is very necessary to use caution in doing this, for if you spread the brood-nest faster than the bees can fill it, you are only hindering instead of advancing them.

I find it pays to stimulate the bees in some manner in the spring, to make them breed fast. The amount of bees are what we are after at this season of the year, and the best way to bring about this result is my aim. I find it is a good plan every time going through your colonies to take a knife and break the cappings just enough to make the honey run, and the bees will gather it up and store it around the brood-nest, and set them to rearing.

A great many bee-keepers are troubled with robbing, but I find it of not much importance if you keep your colonies strong as they should be. If you have weak colonies, I should advise keeping the entrance closed so that but one bee can pass out or in at a time, then there is no danger. Practical apiarists never have much difficulty in this matter; they generally know the condition of their colonies and what to do with them; but sometimes hints that have been tried as experiments and proven successful will help the most enlightened. The bee-keeper works under many disadvantages. What proves and works correct one year will not another, therefore he has to apply his knowledge as well as that of others to the peculiar circumstances that govern the season, and we must govern our work accordingly. How are we to do this? We must understand just what our bees require under all conditions of the weather, and apply our knowledge to their requirements. If there is too little heed given to our bees in the spring how can we expect to receive a bountiful harvest? But if we give all our energies and mind to the best mode to make our pets comfortable, we will obtain the best results as a recompense.

As I have not the space or time that I wish to give to this theme, I hope all will bear in mind the secret of bee-keeping is in keeping your colonies warm and populous, and breeding as fast as possible, then you will have attained the best mode of spring management. THEO. HAUCK.

A vote of thanks for this essay was passed unanimously.

Question: "What style of hives and section boxes are best for securing surplus honey?"

S. Vroman uses the new Quinby hive; he likes the broad frame for side sections and top-boxes used at the same time. He controls swarming so as to have little or no increase; formerly he was satisfied when using the old box hive with about 25 lbs. of surplus honey, but is now hardly satisfied with 100 lbs. per colony.

W. Tennant favors side and top boxing combined; says the Italians work in side boxes best; they are more reluctant about going up; the side boxes must be used to secure the best results. For the native bees he thinks side-boxing less practicable; he favors the 2 lb. prize box, says the 1 lb. is too small.

A. Stanton used top boxes only.

A. B. Simpkins uses top and side boxes combined, and thinks that the best way.

F. Boomhower has had no experience with side boxing and wants none.

Geo. Van Wie favors and practices top and side boxing combined.

W. Tennant objects to the Langstroth frame, says it is not deep enough for successful wintering; would not use it under any circumstances; there is not depth enough for the bees to breed up naturally; he thinks the queen should have room to form a solid ball of brood, at least 10 inches in diameter.

It was resolved that the President appoint a Vice-President for each county not represented.

A resolution of thanks was passed to the County Sheriff and Jailer for courtesies, and a bill of $2 for use of Court room was ordered paid. Adjourned.

N. D. WEST, *Sec.*

CORRESPONDENCE.

For the American Bee Journal.

The Straw Hive of the Future.

WM. F. CLARKE.

Those who are familiar with the old edition of Quinby's "Mysteries of Bee-Keeping" (I have not the new one edited by Mr. Root), will remember a prediction of his that the straw hive would yet, in time, regain its former position in the public favor. Not the conical hive, but a straw hive of convenient shape for using movable frames. I was reminded of this prediction last fall, on being shown, at one of our fairs, a straw hive coated within and without with plaster of Paris. The walls, including both straw and plaster, were about 3 inches in thickness, 2 of them being of straw, and each coat of plaster about half an inch. I was greatly interested in the hive, especially when the exhibitor told me that he was going to winter several colonies on this principle. He promised, at my request, to report the result. I have now his letter before me, in which he says:

"I used 8 of the plastered hives and wintered that number of colonies in them and 33 in wooden hives. The plastered hives had 10 frames in them, the others (Jones' hive) had all removed but 8 (12 is the full complement of frames to the Jones hive). All the 41 colonies had 30 lbs. of honey by weight, not guess. I put them all in the bee house on the 22d of October, and took them out on the 14th of April. Well, all the 8 in the plastered hives came out alive. One that had no queen was alive but very weak in bees. The other 7 were as strong as when put in, last fall; 3 had 5 frames of brood sealed over, and all had some brood in them. All these had old queens, the young ones were all in the wood hives; 21 out of 33 in the wood hives were dead; all the live ones were very weak, and in a bad, dirty condition. Some had used all the honey, while the plastered hives had lots to carry them to the present. The whole 7 are now, May 5, strong enough to swarm, while those in the wood hives are still quite weak."

The calamitous experience of the season just past shows that we have not yet fully mastered the problem of wintering. Various methods have proved successful under certain circumstances, while all have failed in many cases. Cellar wintering seems to have come out somewhat ahead, yet even that has not been uniformly a success. Chaff packing has disappointed not a few of its enthusiastic advocates. Possibly one reason of its failure may be its being encased in boards, one great objection to which is their liability to retain moisture. Mr. Quinby refers to this in his discussion of the straw hive of the future. He says: "Boards do not dispose of the moisture with sufficient rapidity." Again he says: "The moisture must be got rid of, and in no way can it be done so well as by straining it through straw." My correspondent does not say what top covering he had on his plastered hives, but the plaster would be impervious to moisture both outside and inside. With a thick straw mattress on top, the moisture would "strain through the straw," and leave the inside of the hive perfectly dry.

I shall investigate the straw-plaster hive more thoroughly, and report on it further hereafter. Meantime, now that the subject of wintering is invested with such a melancholy and general interest, I give the information which has reached me in regard to this novel mode of constructing hives. I use the term "novel" in regard to myself. It is that, both as to observation and experience, so far as I am concerned, but it may not be so to others, for there are those who consider that, so far as hives go, there is no longer anything new under the sun. Even these, however, may yet find it possible for them to get hold of a new wrinkle.

Listowel, Ont., May 12, 1881.

* * *

From the Western Stock Journal.

The Mortality Among Bees.

O. CLUTE.

In all bee-keeping records there is no parallel to the losses of bees during the past winter. North, east and west all report that a very large part of the bees are dead. In some cases old bee-keepers, who had scores or hundreds of colonies, have lost all. Nearly every bee-keeper has suffered, but some escape with a loss of 25 or 30 per cent. The losses are due to several causes:

1. The season last year was a very poor one for honey. During fruit-bloom there was much wind and rain, hence honey was washed out of the flowers, and bees were also prevented from flying to get it. As but little honey was secured during fruit-bloom bees reared but little brood, and so were weak when the white clover season begun.

2. Last year the white clover was a very short crop. The previous winter was quite open, and the white clover was largely killed. Probably there was not 1-10 of the usual amount; some say not 1-20. Even if the colonies had been strong they would have secured but a short crop of honey. Weak as they were the crop was doubly short.

3. Linden-bloom last year seemed to yield but little honey, and this little was largely washed away by rains during the opening of the flowers.

4. The severe drouth in July and August cut off a large part of the plants that yield honey in the fall. Spanish needle, golden rod, asters, heartsease and buckwheat were much less abundant than usual. As a result the fall crop of honey was very light.

5. From these causes the hives were but partially stored with food for winter. If the winter had been a warm one the losses would have been heavy. But winter began the first of November and there was no let up until nearly the middle of April; more than 5 months of cold weather, during which bees must consume much honey to keep up the heat of the hive, soon exhausted the small supply, and very large numbers of bees soon had every particle of honey eaten.

6. Some report their bees dead with plenty of honey in the hives. This may haypen in 2 ways: 1. In cold weather bees collect in a dense cluster just beneath the honey in the combs. They eat the honey above them, gradually going up the combs until they reach the top. Now, if the weather is very cold they cannot go around the edges of the combs to get at combs containing honey, and may starve with honey within 3 inches of them. 2. Bees do not usually void their feces in the hive; this is done outside on the wing. In very cold weather they had to eat so much to keep up the heat that they soon became gorged and diseased. They are compelled to void in the hives, the hives become damp and filthy, the bees get what is called "bee-dysentery" or "bee-cholera," and perish miserably, in spite of plenty of honey.

Probably all these 6 causes have been operative in bringing to bee-keepers the disastrous results of the winter just passed. It is quite probable, too, that there are other causes which have thus far escaped the notice of the acutest observers. Whatever the cause, bee-keepers are painfully aware of the sad fact that most, or all, of their bees have perished. They have, it may be, a few weak colonies left; they have a discouraging array of hives with no bees, from which the soiled combs send forth a sickening odor. The winter has put a check upon the bee-keeping industry from which it will take years to recover.

* * *

For the American Bee Journal.

Introducing Queens.

ROBERT DOWNS.

There are many methods for introducing queens, some of which require too much unnecessary labor to suit me, and I will give my method. I do not say that my way is best, but it has proved good enough for me thus far. I have, during the past 2 years, introduced a hundred queens or more, for my neighbors and myself, without the loss of a single queen, by this method:

I put the queen to be introduced into the introducing cage, which is an Oatman cage or one similar, with a stopper in one end, and a small, clean sponge, soaked with honey and water, in the other end, in such a way that the bees from outside cannot get to it. I then find and remove the old queen; if robbers are likely to cause trouble, I move the hive into some building, and I find by so doing that it makes the bees more docile and less apt to sting.

In the middle of the day is the best time, as then a good many of the bees are in the field and out of the way. If the weather is a little cool I examine the center combs first, and very often pick the queen off from the first comb that I take out; but if it is very warm, I find that she is as likely to be on the outside comb as anywhere. When the old queen is found I put her where I know she will not get back to the hive again. If the weather is cool I spread the combs apart in the center and hang the cage in between, run a small wire through the stopper and let it rest on the frames which holds the cage in place. I formerly held the cage in place by pressing the combs against the cage, but I often found the cage on the bottom board when I opened the hive to liberate the queen, which, though it may be harmless, is not so handy to get out when ready to liberate the queen; if the weather is warm, which is generally the case, I lay the cage on the frames and, as in the first place, close up the hive and let it remain from 18 to 21 hours (not over 24 hours); then open the hive very gently, using a little smoke to drive away the bees from the cage, remove it as carefully as possible, take out the stopper and replace it with one of comb honey, cut to fit. I uncap a little honey near the cage, after it is replaced on the frames, close up the hive as before, and the operation is performed.

The bees will liberate the queen in a very short time and when the hive is closed and everything is quiet she has the scent of the hive and very soon begins business, like all good queens. By this method but very little time is lost in the increase of the colony. After removing the old queen I aim to get another one in her place as soon as possible. To let a colony remain queenless for 6 or 8 days is needless, and then to go through a hive and cut out the queen-cells I find is no boy's play. I have put in queens in this way when the bees were made so cross by robbers that I could not go near the hive without veil and gloves, and the queens were received all right, every time.

Naugatuck, Conn., May 2, 1881.

* * *

For the American Bee Journal.

Shall we have a General Report?

G. L. TINKER, M. D.

There will probably never be a more auspicious time to make a general report on the various causes of the great mortality of bees during the past winter. If bee-keepers are to profit in the future by our late disasters, a classified and summarized report should be made. No names of bee-keepers need be published, but the losses of colonies and those left alive can be classified and utilized to great advantage in promoting the science of apiculture in this country. A percentage of all losses in the different kinds of hives by the various methods of wintering can be made so that it is possible to ascertain the most successful winter hive and the best method of preparing for winter.

The many published reports are indefinite in very important particulars, and if anyone will take them alone and endeavor to make out a general report, it will soon be found to be impracticable. I have therefore undertaken to make out a general report by addressing a large number of bee-keepers for more definite particulars, and if all I have addressed will answer as fully as those I have already heard from, a report of value and general interest can be made. I hope to receive reports from all whom I addressed, and from many others.

A full report can be readily made out on a postal card, if the following form be taken as a guide, and may include the living and dead colonies of other bee-keepers in the neighborhood:

What hives were used..............——
Number wintered on summer stands
unprotected... ....——
Number alive....................——
Number protected.................——
Number alive....................——
Number wintered in cellar, winter
repository or bee house........——
Number alive....................——

It is important that the kind of hive used in wintering be given, and following it the method of preparation for winter, then the number of colonies lost and the number left alive.

New Philadelphia, Ohio.

* * *

For the American Bee Journal.

Disturbing Bees in Winter.

C. A. HATCH.

Most writers on the subject of the present loss and bad condition of bees are inclined to lay the blame to long confinement. I have an interest in 23 colonies 10 miles from home, now in a cellar, where they have been since about Nov. 5, with no flight, making over 5 months' confinement, and yet I never had bees in a better condition. Fifty colonies at my home cellar have all had one good flight and part of them two, and they are not in as good condition as the others; have lost 9. If bees cannot be put out for good in 2 weeks after a flight no good is done, but rather the reverse; it makes them uneasy; they come out of the hive and die on the cellar bottom.

The idea suggested by Mr. Langstroth, *i. e.*, that disturbing bees causes them to breed, is true, and in this case (of winter flights) the cause of the trouble. Confining longer than 2 weeks causes excessive consumption of honey, and hence dysentery and all its ills. If the foregoing "lesson of the hour" is true, and facts seem to sustain it, we should regard winter flights as a remedy for trouble already begun, rather than a preventive of trouble to come. The cellars in both the above cases are dry, warm and well ventilated; both lots of bees being in Langstroth hives, of the same stock, and apparently in the same condition in the fall; why one should need the flight and the other not, I do not know, but it was not the confinement that did it.

The following table of losses and manner of wintering may be of interest. It covers an area of 10 miles, except such as have already reported:

A— 4	colonies,	loss	4	C	F
B—10	"	"	3	C	F
C—25	"	"	21	C	F
D—10	"	"	10	S	F
E— 6	"	"	6	S	F
F— 9	"	"	8	SS	B&F
G—10	"	"	10	S	B&F
H— 4	"	"	4	H	B
I — 6	"	"	6	H	B&F
Mine, 50	"	"	9	C	F
" 59	"	"	8	C	F 5 b
" 23	"	"	0	C	F
" 4	"	"	4	S	B
" 8	"	"	4	B	F
228			96		

The letters indicate different owners; in the column for manner of wintering, C stands for cellar, S for summer stand with straw packing, H for house, SS for summer stand without protection, B for buried. In last column F stands for frame hive, B for box hive.

Ithaca, Wis., April 15, 1881.

* * *

For the American Bee Journal.

Success in Wintering Bees.

A. D. STOCKING.

As the past winter has been a severe one on bees, and as there has been great losses by both old and experienced and inexperienced bee keepers, the question arises, what is the cause and what the remedy?

We have passed through 2 severe winters on bees, and one the opposite of the other; the first open, wet and changeable, the last long, and severely cold; the loss of bees both winters being heavy. We need not discuss the method of wintering, for those who read the JOURNAL can see that whether wintered in the house, the cellar, or on the summer stands, in chaff or packed, there is not much difference in the results; there has been success and loss in all these modes of wintering, therefore we must look somewhere else for the cause.

One year ago I wintered 18 colonies without any loss; this last fall I had 34 colonies and have lost but 3; the balance came through all right and are now getting a good deal of honey and are building up finely. I wintered mine on their summer stands, protected only by about 5 inches of fine cut buckwheat and wheat straw over the frames, and the weakest chaff cushions at the sides, and the entrances closed to about 2 inches; they had no flight for nearly 4 months.

I have no extractor, therefore took no honey from the body of the hives and they were full of clover and basswood honey, and the hives full of bees, with the exception of 3 or 4 that were quite light. I got but very little surplus honey. I have come to this conclusion: That the cause of the great loss of bees was lack of young bees, poor stores and long confinement. It is generally considered that the fall honey is usually of poor quality; if we extract the early honey and leave the bees to winter on the fall honey we must expect heavy losses if the winter proves severe; of course many were short of stores and starved. I attribute my success wholly to my hives being full of bees and having good honey to winter on. I think many pay more attention to the mode of wintering than to the interior of the hives. If I was using the extractor and my bees had to winter on fall honey and I was not satisfied the honey was of first quality, I would extract it and feed the best sugar, if I had not clover honey to give them.

Ligonier, Ind., May 16, 1881.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR,

CHICAGO, ILL., MAY 25, 1881.

Did Starvation Cause Dysentery?

Dr. Southwick contributes the following, as corroborative of the position he assumed in the Weekly BEE JOURNAL of April 20, that the prevalence of dysentery was owing to starvation:

> I have found another case of dysentery, which I think will puzzle your long-confinement, bacteria and pollen men. As I understood the man, he said he took off the top boxes in the fall and put in their place a cushion; the bees, nearly a quart of them, got above the cushion, could not get back, and died there. He said they had the dysentery bad, daubing the hive, and upper side of the cushion very much. Now, where did they get their honey with or without the bacteria to produce this dysentery and death? Is not this a pretty sure case of dysentery and death produced by starvation, or is it a first-class case of dysentery caused by gorging themselves with an imaginary honey and no chance for flight? E. B. SOUTHWICK.
>
> Mendon, May 13, 1881.

It was undoubtedly a first-class case of dysentery caused by gorging on *real* honey. It is more than probable that the disturbance necessarily created in taking off the top sections caused the bees to gorge themselves before getting above the cushion, and certainly the close confinement is clearly established, inasmuch as they could not get out for a flight. If, on the other hand, the supposition be assumed that they were workers returning from the field, the probability is equally as strong that they were filled with honey when imprisoned. To our mind, Dr. Southwick has cited strong presumptive evidence to disprove the theory he attempts to establish.

Last fall we had occasion to visit an apiary of two hundred colonies, in Kane county, Ill., in which several colonies had died from sheer starvation. In many of the combs were cells filled with dead bees, but so far as our observation went, not a comb was soiled. We since learn every one of the 200 colonies died from starvation in the early days of winter. Our informant (an old bee-keeper) said the hives were filled with as bright and clean combs as he ever saw. Another case: A gentleman from St. Clair county, Mich., remarked in the BEE JOURNAL office, a fortnight since, that he had lost about all his bees (some 200 colonies) by starvation, and had purchased another 100 colonies with which to build up again, and it would be an easy task, as his bees that starved had left a nice lot of clean combs.

We have examined many hives this spring in which the bees perished, and, as a rule—in fact almost universally—where the excrement-covered combs showed that dysentery had prevailed, we observed more or less honey; sometimes the honey was in close proximity to the bees, in others further removed; but it was almost always to be found in the hive.

To what extent the presence of bacteria in the honey may be a factor of disease we cannot say, but we do not see any reason for believing that starvation is the cause of dysentery. Observation has led us to think that excitement and confinement would produce it, as also would unusual cold and unremitting confinement; and it may be these factors are more or less each dependent on the others.

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Best Package for Extracted Honey.

Mr. J. H. Shimer, of Hillsboro, Ill., asks the following question:

> "What is the best style of packages for putting extracted honey on the market? I want to begin right, for a good start is half the battle. I have 118 colonies, all booming, and a good prospect for 10,000 lbs. of white clover honey."

The above question is one of the greatest importance in connection with bee-keeping. If the product is for a home market, then, of course, the producer must study the local preference regarding the size and style of package, as well as the grade of honey most easily disposed of. As far as practicable, keep each grade of honey separate; it is a mistake to suppose a few pounds of inferior or different shade honey will make no difference in a large bulk of white clover honey, or that thereby a better rate will be obtained for the second grade article. Instead, the result will most likely be to class it all as second grade, and the price of all will be depreciated. Again, if possible, keep the white clover and basswood honey separate. In order to do this, keep a vigilant watch of the basswood bloom, and extract the white clover quite close before the bees commence gathering from the former. A little clover in the basswood honey, however, will not do the harm that would result if the proportions were reversed. After the basswood harvest is all gathered by the bees, extract it closely, as it will not do to taint any other honey, even though it be from fall flowers and somewhat darker, with its peculiar pungent flavor.

For small retail packages, tin pails with close-fitting covers are the best. Purchased by the gross or in lots of one thousand or more, the price is so inconsiderable that no consumer will object to paying what they cost in addition to the price of the honey, for they are so "handy to have in the house" that not one housewife in a hundred would wish to return the pail. Persons will often persuade themselves to purchase a pail of honey after lifting off the cover and tasting the contents, who would not be tempted were it in a tight-stoppered jar or a close-topped can, so they could only "feast the imagination" by reading the label. A neatly printed label should be gummed or pasted on each pail, stating the amount and kind of honey, name of apiarist by whom put up, and giving in a foot-note directions for liquifying the honey in case it shall become granulated. These pails might be of three sizes—1-quart, 2-quart and 1-gallon—holding, respectively, 2½ lbs., 5 lbs., and 10 lbs. We would not advise the use of screw-top cans; they are a nuisance in more ways than one. It is equally difficult to get an exact weight into and out of them; if the honey be granulated, it is difficult to liquify it without besmearing the can; and they are not convenient for general use in a family after the honey is consumed, so the purchaser feels that what is paid for the can is money thrown away.

If smaller packages are wanted, then use glass jars and tumblers. These are always worth their cost in the family—the former for pickles, catsups, and a thousand other uses, while the latter are equally appreciated for their convenience in putting up jellies, etc. Jars and tumblers, like the tin pails, should be tastefully put up and labeled. For a retail market, excellence of goods should be the prime consideration, but the attractiveness of the package should never be lost sight of. Manufacturers of adulterated goods, of nearly every description, depend more upon effecting sales by the employment of attractive packages and tasteful, pretentious labels than upon the excellence of the pretended article sold. In this respect, bee-keepers have been wofully negligent, and many have appeared wholly indifferent as to the appearance of their honey, seeming to imagine that their personal assurance to the grocer of the purity of the article, was sufficient to convince the public of its desirableness. Nine times out of ten, New York or Chicago glucosed honey, in attractive packages, will find a sale at exorbitant figures, while unattractive pure honey goes begging the market at unremunerative prices.

If the honey be destined for a metropolitan or foreign market, an entirely different method of putting it up should be employed. No more convenient, attractive or economical package can be used than ten or fifteen gallon kegs. These should be spruce, pine or cypress, and never of hard-wood. Barrels are too heavy and cumbrous for convenient handling, too large and irregular in size for rapid sales, and too wasteful in leakage for profitable use. No hard-wood barrel is safe to put honey in till after it has been thoroughly waxed, and even this will not prevent leakage where the honey has granulated, because it will be necessary to take the head out of the barrel to get at the honey, and in order to do this, the hoops must be started and the staves sprung out, which breaks the wax at every joint where the staves come together, and they cannot be closed tightly again; therefore, if the honey be not all taken out at once, leakage is certain to follow. The wax also comes off the staves in scales and mixes with the honey, which is often very annoying. Soft-wood kegs need no waxing. If thoroughly drenched with water a few hours before using, no leakage will take place. Taking into account the value of the wax and time consumed in applying it, together with the price of the barrel, and the kegs will be the cheapest, without reckoning in their favor the less liability of leakage and greater convenience. As the jobber never pays for the barrel, the shipper should use the cheapest—if the best.

The preference of jobbers will always be found to favor the kegs holding 10 and 15 gallons. With a shipment of 10,000 lbs. of honey, we are confident 9,000 lbs., if in kegs holding 10 and 15 gallons—110 and 165 lbs—will all be sold before the remaining 1,000 lbs., if in two ordinary oak barrels of 500 lbs. each, provided the quality is the same. Many times jobbers and commission dealers decline small sales, rather than furnish smaller packages and give the time requisite for dividing up a large barrel of honey. We think we are safe in predicting that the time is rapidly approaching when there will be a discrimination of at least one cent per pound in favor of the small casks, for the finer grades of extracted honey, whether for retailing or manufacturing purposes.

We cannot see anything about the large tin cans (5 and 10 gallons), whether round or square, to recommend them to public favor. They are very expensive, and require an outer wooden case to protect the can in transportation. This extra expense is a total loss to the apiarist, as no can is worth returning after a grocer has retailed its contents. We very much doubt, also, if any grocer could be found willing to buy a second 10-gallon can of honey at any price, after having had the contents of a first one granulate a few times.

◆

Statistical Report.—The call is quite general for a statistical table of the results of the winter on the bees of America. In order to have it of any value it should be general and full. We will give it in the JOURNAL if we can have a general response, but a partial one will be annoying, and will not repay us for the labor and expense of getting it up. We invite attention to Dr. Tinker's remarks on this subject, on page 163. Be careful to follow the table there given, and let the reports be sent in at once. Dr. Tinker has promised to send us his statistical table next week, therefore all reports should now be sent to the BEE JOURNAL directly, that they may be included in the general statistical table.

AMONG OUR EXCHANGES.

BRITISH BEE JOURNAL.

☞ The *British Bee Journal* commences a new volume with the May number. Mr. C. N. Abbott, its able editor, with whom we spent several very pleasant hours while in London, two years ago, is a thoroughly practical apiarist, and keeps up with the times in all progressive and scientific attainments. He commences the ninth year of the existence of the *British Bee Journal* with these characteristic words: "For ourselves, we promise to do our best to deserve what it is not in mortal to command, success." The AMERICAN BEE JOURNAL extends its congratulations, and wishes its contemporary an unbounded success.

☞ The Rev. Herbert R. Peel, the very efficient Secretary of the British Bee-Keepers' Association, we are exceedingly sorry to learn, is seriously ill. Mr. Peel is an enthusiastic apiarist, and one of the most progressive in England. We hope he will soon recover his wonted health.

The Weather in England.—The prolonged coldness of the weather, consequent on the prevalence of easterly winds during the past month, has sadly retarded the progress of favorites, for, excepting occasionally, they have scarcely visited the fruit-blossoms with which Nature has so bountifully and beautifully embellished the earth, and many of the fruits which she has so lavishly "brought to the birth" will not be "brought forth" through the impossibility of apistical influence, a great argument in favor of bee-keeping.

Bees and Honey Producing Bloom.—At a recent meeting of the Torrey Botanical Club Mr. Thomas Mehan, in a note in the *Bulletin*, of the Torrey Botanical Club, says:

I find that the behavior of bees is governed by circumstances. When flowers are abundant they visit those only which they prefer; at other times they examine anything that comes in their way. At the time I am writing, (May 18) there is a dearth of garden flowers. Those of early spring are gone, and the later ones are not well formed. But columbines in many species are in bloom. The humble bee bores the end of the nectaries and sucks the honey stored there, and the honey bee follows and sucks from the same hole what may be left, or what may be afterwards generated from the honey gland. I have often watched closely to learn whether the honey bee bored for honey. Its quick motions are unfavorable to correct observation. I thought I once caught it boring lilac flowers, but I afterwards counted all the flowers that had been bored by the humble bee, and then watched the work of the honey bee on the cluster, and there were no more bored afterwards than before. The columbines (*aquilegiæ*), with curved nectaries, such as *A. Vulgaris* and *A. Olimpica*, are very favorable for observation, as the slit is made on the upper side of the curve and the honey bee can easily be seen following after the crumbs that may have been left on the strong one's table. I have no doubt, however, that it would bore for itself if it had the power, and perhaps it sometimes does. The humble bee and the honey bee are evidently not the insects for which the columbine had this beautifully contrived nectar cup provided, to induce cross fertilization; and what particular insect was designed to be the favored one, so that it, and no other, could turn its tongue around those twisted spurs to get at the honey in the end, I think no student has yet discovered.

Empty Combs and Moth Worms.—In the *Prairie Farmer*, Mrs. L. Harrison says:

The warm weather of this month is promoting the hatching of moth larvæ (*Galleria Cereana*) in unoccupied comb. The eggs of the bee moth are very small and white. As soon as they hatch, to protect themselves from the bees they wrap themselves in a silken tube, which they have power to spin. They remain in this tunnel of silk during all their growth, enlarging it as they eat. By looking closely the presence of these larvæ may be known by this robe of glittering silk along the surface of comb.

In 3 or 4 weeks the larvæ are full grown, when it spins its cocoon, and issues from it in 2 weeks in a moth of the color of old boards. In an astonishing short time these worms will destroy the comb in a hive. Their anatomy is very different from ours, for they can digest comb and it makes them plump and fat. These worms breed in weak colonies, and those that are queenless, but we know from experience that a teacupful of Italians will protect all the combs in a hive from their inroads. We have inserted a comb, badly infested with worms, into a strong colony of Italians, and in an incredibly short time they carried out the worms.

Some apiarists claim that freezing will destroy these insects in all stages. It was certainly cold enough the past winter in the open air for the experiment, and we find plenty hatching in unoccupied comb thus wintered, at the present writing—May 11. These insects are great cowards, and love warmth and darkness, and we have observed that when combs touch they are more likely to be infested than when hung separately. If unoccupied frames of comb are hung up in a light, airy room, 2 inches apart, they will keep free from worms until needed. All combs in hives without bees, should be fumigated. We do this by lighting our smoker, and when it is burning sprinkle on sulphur and set it in a hive.

SELECTIONS FROM OUR LETTER BOX

Pollen in the Combs.—My report for this year is, I lost in wintering 33 colonies; 6 are rather light. I usually have success in wintering my bees. Mr. H. L. Jeffrey, on pages 146-7 of the BEE JOURNAL, has hit the nail on the head about pollen in the combs for wintering; but I would put it in, in April. I have experimented in feeding in winter largely, and I like it; it may be the way out of our difficulties in these hard winters. J. L. DAVIS.

Holt, Mich., May 14, 1881.

The Frame for Winter.—Bee-keeping is dreadfully set back here; box alder is in bloom, but not one bud where thousands might have been seen last year. My bees are all nice and busy. One colony shut up out-of-doors from Nov. 1, to April 15, came out to-day, healthy and in a normal condition. I see no reason for changing my method of wintering, except that I would recommend 30 lbs. of honey instead of 25. One point will eventually come out fully and that is that bees must have a frame long enough and deep enough for the cluster to travel on all winter, without changing from side to side. Breaking cluster in winter, especially if pollen is plenty in the combs, always produces excitement, followed by dysentery, unless the cluster is broken by a cleansing flight. I have repeatedly seen the bees, after having exhausted the stores in a few frames, prepare to break and change, and I have noted the results. A frame for wintering that is shorter than the Langstroth is a mistake; I prefer them a little longer and nearly 3 inches deeper. Consumption of honey with me was light in 1873 (commencement of my experiments in wintering) till the winter just ended, which has simply been enormous. I have to feed. I am not discomfitted by Prof. Cook's report; there will be an outcome to that yet. One point I have fully proven, at least to my satisfaction, that is, that bees may remain shut up on pure honey, free from pollen, from Nov. 1 to April 15 without dysentery, and with trifling loss of bees from the colony. I have tested this the last 6 winters by trial of one colony each winter. J. M. SHUCK.

Des Moines, Iowa, April 29, 1881.

The Opinion Prevailed.—In the Journal of May 18, in the report of the Eastern Michigan Convention this sentence occurs: "All agreed that further importation was undesirable." It should be: "the opinion prevailed that further importion is undesirable." The opinion was not unanimous, but seemed to be held by a majority of those present, as now published the minority are misrepresented. A. B. WEED, *Sec.*

Detroit, Mich., May 20, 1881.

Those Three-Peck Swarms.—In the Weekly BEE JOURNAL of April 20, Mr. C. A. Hatch remarks that he fears some novice may be ruined in trying to obtain such results as I reported. His remarks about basswood are all lost to me; I never wrote a word about basswood, neither do I claim any knowledge of it. That article was written by R. A. Morgan, who lives in the next county and makes a specialty of rearing basswood trees for sale from the seed, and ought to know whereof he writes. Those 3-peck swarms trouble him; and he gives figures to show how they could not get in the hive. Did he ever see one of his peck swarms contract at the approach of winter into a ball no larger than a child's head? That enormous yield of honey—245 lbs from the swarm and 185 lbs. from the parent colony—is 438 lbs. he says; reader, figure it. I stated that I took 430 lbs., which sold at 20 cents, and it netted me $86. The fact that I live in a fertile valley, bordered by streams abounding in basswood, maples, alder, willows, etc., bounded by high bluffs affording fall flowers late, and have at least 8,000 acres of clover range, makes the statement no less true of my yield, even if our friend living 100 miles away has a small one. I gave my plan of taking comb honey last season. I send you a sample by mail of red clover honey, of which I took a very large surplus in June, before basswood, last year. My bees are in excellent condition; they began carrying in pollen April 15, and to-day they just roll in with the little yellow balls. I never saw so much brood at this season of the year, and considerable new honey is coming in, I think from maple or willow, both being very plenty at short range.

E. A. MORGAN.

Arcadia, Wis., April 20, 1881.

The Results of the Winter.—I started into winter with 165 colonies; they were strong, and had plenty of sealed honey. After 5½ months of steady cold weather, I had but 3 very weak colonies. My bees left 3,000 lbs. of sealed honey of the best quality. A few showed signs of dysentery in the hives, on top of the frames, and many more died before they reached that point. My bees died from extreme cold weather, long-continued. They were not sufficiently well packed on their summer stands. I live on the highest ground in Peru, and there was not one day from Nov. 10 until April 15, that was warm enough to open a hive with safety. One of our best bee men, at Granville, wintered his bees in the cellar, and lost 25 colonies. Another, at Henry, put into winter quarters 200 colonies, and saved only 40. One in this city had 40 colonies, but now has none left. Our lady bee-keeper on the prairie had 60 colonies, but now has only 2. The less we know about bee-keeping, the more we think we know; the same is true, however, in all other pursuits in life. Box-hive men fared the best this season. One man saved 2 out of 10 colonies; another, 2 out of 18; another, 6 out of 20, with no protection whatever. One man had 3 box hives; he removed the honey boxes from the top, left the holes open, set an empty hive on each one and saved all. I append a statement of my 4 years' work. I had but 1 colony in 1876. Commenced in 1877:

Bought during 4 years, 64 colonies	$218 00
Material for hives, fixtures, etc	222 40
	$440 40
Sold honey, hives and bees	$306 00
Pleasure with my bees	134 40
	$440 40
On hand 3,000 lbs. honey at 10c	$300 00
" 300 hives at $1.50 each	450 00
" extractor, buzz saw, etc	50 00
	$800 00

Also, 1,400 straight combs.

I admit being somewhat at a loss to know what to do to be saved, but have concluded to go on, if I have to commence with one colony. We are about as badly off as the people in Kansas after they were hoppered.

H. S. HACKMAN.

Peru, Ill., May 1, 1881.

Winter Losses.—My loss is fully 50 per cent., and the remainder are very weak. Most of them were packed on the summer stands. I placed potatoes on the honey board of 2 or 3 and found sprouts from 3 to 9 inches in length. Those in cellars lost less bees, but the combs were moldy and mice destroyed 3 or 4. A near neighbor had 11 and lost all but 2; another had but 3 left out of 13; another had 16 and lost 8; another 9 and lost 5, another 8 and lost 4. One man claims to have wintered 13 in his chamber without loss; another put 13 in a dry cellar and lost 4; another had 9 and lost all. Others lost heavily but I have not learned to what extent.

H. B. ROLF.

Westfield, N. Y., May 16, 1881.

A Boy's Experience.—We have 3 colonies of bees, 2 blacks and 1 Italian, in good condition; they have commenced storing honey in the boxes very rapidly from the poplar and black gum. The poplar bloom is very rich, there being now more bloom and honey than bees. I believe the blacks will beat the Italians, at any rate, they are working better in the boxes. My father says he expects 100 lbs. from each colony; he says I have the "A B C" book but need the JOURNAL also. I am 13 years old and don't know much about bees only what I learned from the "A B C" and by watching the bees. A. DEATON.

Carthage, N. C., May 11, 1881.

Bees in Canada.—By an observant perusal of a letter in the BEE JOURNAL May 4, page 142, one would suppose that Ontario is devastated of its bees; this is not the case; those put in good cellars, or houses built for storing bees, did not have heavy losses. Mr. M. Emigh, living 6 miles from this town, put into a cellar under a dwelling house, last November, 85 colonies, and took them out April 21; 5 colonies starved; temperature in cellar 40° to 50°; and to-day some of them have 8 frames of brood. R. Martin, of this town, put away last fall 8 colonies; now he has 7. I put into a bee-house 100 colonies on Nov. 4, and into a cellar under a dwelling house I put 45 colonies on Nov. 10. I did not remove the summer quilts and opened the entrances to the full extent. I put them out April 15 in splendid condition. Losses to May 1, when I take stock for the year, 13 colonies—3 died with plenty of stores, 2 were robbed after being put on the summer stands, leaving 127 colonies; 4 of them are weak. My bees were never in a better condition at this season of the year than at present. The temperature in the house was 38° to 52°; in cellar, 40° to 50°, well ventilated. At noon to-day, at time of young bees playing, I saw drones flying. J. B. HALL.

Woodstock, Ont., May 11, 1881.

No more Black Bees.—I have already reported going into winter quarters with 27 colonies (all black but 5), and coming out March 1, with 26, one black colony in an odd sized hive not being supplied with honey from the Italians, lived till the last of February and then died. Moving in March, the condition of the roads forced me to leave my bees seven miles away, till April 26, when I moved them up and found that 2 had deserted for want of honey, and 2 had starved. Two others were so weak that they were united, 1 being queenless. Five in all were queenless, but that was a slight loss, as all my Italians were full of bees and brood, and drones were hatching. I took stores from them last fall to keep my blacks alive, and now I have taken brood for my blacks to rear queens and to build them up with. I have been an advocate of black bees, or at least slow and cautious to change, but after this I shall doubt the judgement of any bee-keeper who will have them, if he can get Italians at any price. If I have any on the place hereafter, I shall feel obliged to make some excuse or apology for there being here. Indications with me are for early and profuse swarming, and I would advise all bee-keepers who desire honey, rather than increase, to be on their guard. Mr. Shepherd, some miles northeast, has, I hear, lost 50 out of 100 colonies. Dr. Foreman, of Milton, reports a loss of one out of 33, but gave no details. The Dr. has the brightest bees and the tidiest apiary I ever visited. I enclose a little plant, or floweret, that I wish you to give the name of, though I am ashamed to ask any one to name a plant so common; yet the bees seem so busy on it that it would be interesting to know what to call it. White clover is very abundant, and the promise is for an abundant honey crop. I have lately seen a new honey rack, invented by E. Armstrong, in which both ends of the rack act as wedge, while 5¼ x 6¼ and 4¼x5¼ boxes were so arranged that both or either could be put in the rack; the same separators answer for both sixes of boxes, and the glass was cut in strips as long as the box was wide, and no glassing of sections was required, as the wedges held all very tightly together. I do not know whether it is patented or not, but it is a very superior honey rack, and the inventor deserves credit for it, as it can be made to fit any hive. One of your correspondents says that a dead-air space between double walls will prevent the formation of ice in the hive. Most of my hives are well and carefully made with two ⅞ walls, and from ½ to ⅞ of an inch between them, yet ice forms in them before the thermometer marks zero, though they are tightly fitted on good stands, and no ventilation, except ⅜x2 at the entrance WM. CAMM.

Murrayville, Ill., May 1, 1881.

[It belongs to the aster family.—ED.]

Wintered Well.—Afer 5 long weary months of close confinement in the cellar, my bees are again upon their summer stands. My bees have come through the ordeal well; I lost a few colonies by starvation. Not having a flight, I had no knowledge of their needs until too late. I put my bees on their summer stands April 25; next day they were carrying in pollen rapidly; the third day I looked through the hives and found new honey from swamp poplar, I suppose, as the willows had not then blossomed. I read in the Bee Journal of terrible losses, and know personally many that have lost all, who have not reported. What few bees are left should be well cared for; I think there is a good prospect; white clover is plenty where there was none last year.

E. J. Gould.

Dundee, Ill., May 3, 1881.

Saved 60 per cent. of Bees.—Not less than 95 per cent. of the bees in Delaware Co., N. Y., are dead, but I have done better than that; I have saved 60 per cent. of mine.

N. H. Owen.

North Kortright, N. Y., May 11, 1881.

Success.—Bees have not wintered very well here. Those on summer stands without protection are all dead. Some have wintered well in cellars and some have lost all. I wintered 130 colonies without loss up to April 15, since then I have lost some and have united weak colonies and am now a dozen short, but none are as strong as they were one year ago. Success to the Bee Journal.

N. D. West.

Middleburgh, N. Y.

Early Swarms.—I had 2 large swarms out to-day, and have several more about ready to swarm.

B. Walker.

Capac, Mich., May 10, 1881.

No Loss in Winter.—My bees are Italians, and have wintered without loss, on the summer stands, with protection. They are strong and breeding nicely.

Amanda Parsons.

East Gloucester, Mass., May 18, 1881.

Statistics.—Now that winter is fairly over, and we begin to recover and count up the dead and living colonies, we would like very much to have a statistical table, much like the one in your excellent Journal of October, 1878. I think it could be obtained by giving notice through the Bee Journal. I will do what I can to help its completion. Success to the Bee Journal.

Newell E. France.

Platteville, Wis., April 25, 1881.

Pleasant Visit to Texas.—On May 11, I arrived at McKinney, Texas, to attend the State Bee-Keepers' Association. There was a good attendance and we had a very interesting meeting, at the apiary of President Andrews, whose hospitality I enjoyed. Many zealous bee-keepers were in attendance, among whom were: Mr. F. F. Collins, and Dr. Howard, Dr. Graham and others. They gave me an enthusiastic welcome as President of the National Society, and I shall long remember this meeting with pleasure.

N. P. Allen.

The Condition of the Bees.—I will let you know how the bees are coming on about here. One man put 40 colonies in a cellar and took out 33 with bees in the hives April 9; another man put 5 colonies in the cellar and they were all right; another having 35 or 36 in a bee house last fall had lost all by the first of March—the bee house had 2 thicknesses of boarding and 2 thicknesses of paper all around; another that wintered in a bee house, double-walled and packed, lost about 20 out of about 40 colonies, but perhaps a cider mill was to blame for that; another that wintered in a bee house lost nearly ½, and nearly all that were left out-of-doors without protection are dead. I had 22 colonies and 4 nuclei; the nuclei and 2 colonies starved, and one was queenless. All but 3 are in good condition. They were put in the cellar about Nov. 17, and took out April 9; one colony had the dysentery. The thermometer stood about 34 above zero; I think it would be better, from past experience, if I had kept it about 40° to 45°; they used more honey than ever before. As to the cause of dysentery, I think G. M. Doolittle is right about the matter; this one of mine, last fall, was a strong colony and they have eaten more honey than any one in the lot. I don't know just why they get uneasy and do so, but I think that is all the trouble. Another colony was very heavy last fall, and seemed about as heavy when I took it out, and they have lots of honey and bees and are dry and nice. So, in proportion as they eat and keep quiet, are they in good condition. Such I could get out-of-doors, perhaps, before they appeared to know they were being moved, but the others would boil out in the cellar, making an uproar because there was a disturbance around them. I believe that a good cellar, rightly arranged, is best. Mine is 19 feet by 25 feet, divided through the middle by a lathed and plastered division and in the south end has a stove. When it gets too cold I build a fire and open the door between, and when I want to ventilate I do the same.

V. W. Keeney.

Shirland, Ill., April 19, 1881.

The N. E. Convention.—We all enjoy a good joke, and those personally acquainted with the parties mentioned below will, I think, appreciate it:

Our friends, Messrs. Doolittle & Co.,
Have had their storm and calm,
Are now consoled, like bees subdued
By smoke, or sweet, or balm.

President Root did well preside;
But now his term has past;
We still desire to hear of him,
If only by "cold blast."

Dr. Marks, who took his place—
Our choice—we all like well;
The hearty vote that he received
Is the rule by which to tell.

When Vice Doolittle took the chair
He filled it to the edge;
The discussions still continued,
From the hive down to the edge.

A clown could never, never give,
By either smile or grace,
The dollars Bacon did receive
As shown by smiling face.

Our Secretary gave us information,
Not in money or in stocks;
But that a 5c. or 10c. cigar
Both came from the same box.

Our fare was all that could be wished,
Our beds were low and wide;
But cornerwise, to stretch our length,
We lay there side by side.

Next year when we shall meet again,
If the mercury is not much higher,
We had better go, packed in chaff,
Or have a better fire.

Scriba, N. Y. F. H. Cyrenius.

[This was sent immediately after the Convention was held, but a press of important matter has prevented its publication till now.—Ed.]

After the Battle.—One-half the bees wintered in repositories, in this locality, are dead, as well as 9-10 of those wintered on summer stands. I reported, on March 16, that my bees were in good condition, with the loss of 1 out of 68; they were returned to the cellar, and another warm day did not occur until April 16, when they were placed on the summer stands, with a loss of 2 more. Spring dwindling, since, has caused a loss of 20 colonies; but if I had lost all, I should try again, with as much enthusiasm as ever. I have been much interested in the reports on wintering. I think that apiarian science consists in successfully getting the bees through from November until May. In regard to the Weekly Bee Journal I would say: For the man that is interested in bee-keeping, from one month to another is too long to wait. I have been out to-day watching the blessed bees; the woods are full of flowers and the apiary is booming.

C. H. France.

Erie, Pa., May 1, 1881.

Cellar Wintering.—About March 1, 1880, I took 4 colonies of bees out of the cellar, after 4 months' confinement; 3 were in good condition, but the other had to be fed. They were in good condition for honey gathering, but white clover and other honey-producers failed, and in the fall I had to feed them. I increased by natural swarming to 7, and bought 3; one of the latter left one day in my absence, leaving 9 which I had to feed. One colony, by some oversight, did not get enough, and starved. I took them from the cellar last week, and 3 were weak (1 being queenless), 2 of which I united and may have to give them the third. The remaining 5 colonies are in good condition. Early last summer I took $12. worth of comb honey from them, but should not have done so if I had any idea that the season would be so poor. My bees were in the cellar last winter 160 days; they were dry and free from mildew; I did not disturb them till spring. I prefer to winter in the cellar, and shall practice it till I find something better. All who keep bees should subscribe for the Bee Journal; it is worth many times its price. I am of the opinion that it is not advisable to clip the queens' wings to prevent swarming. I think the mutilation robs her of prestige and power.

Wm. L. Backenito.

Iowa City, Iowa, April 18, 1881.

"Dollar" and "Tested" Queens.—The article on page 91, on "The Supply and Queen Trade" seems to infer that if we wish to improve our bees, we have only to get some high-priced queens, and it is accomplished. I do not believe the theory: we have to depend upon the honesty of the breeder, for we cannot examine the goods and select the best. I notice in one circular sent me, the breeder says that he rears dollar queens just the same as tested ones, but can better afford to sell them as soon as they begin to lay, for a dollar, than to test them at the higher price. That being the case, would it not be better to test them ourselves and save the higher price? Would not some breeders having large orders for tested queens, fill the orders, even if they were not very prolific, if purely mated, etc? Success to the Weekly.

Lyn, Ont. C. J. Asseltine.

Swarming Out.—I placed my bees on the summer stands April 8 in good order. After being in the open air for 1½ hours one of the colonies left the hive, and, after a flight, they joined another colony, where they were accepted without strife. This colony had plenty of honey and a good queen; the hive was clean and all the combs bright. Why did it leave the hive? The bees of this same colony left the hive again on May 8, leaving brood in all stages, and joined another. Here they were only accepted after a severe fight, in which several hundreds were killed. Why did they do it? What does it mean when bees come home loaded with pollen and stop at the entrance of the hive and buzz for some time before entering?

Otto Rohland.

Narrowsburgh, N. Y., May 14, 1881.

[It is not a settled point, what causes abnormal swarming. We have known a colony to desert 3 or 4 hives before settling down to business permanently; then, again, we have known as many as 3 abnormal swarms to go in the same hive. Bees in gathering pollen sometimes come in contact with obnoxious plants, and it is generally supposed the fanning is done to purify themselves before entering the hive.—Ed.]

Wintering Bees.—Any facts on this subject are interesting to those desirous of obtaining information. Meeting a man who keeps bees, some distance from my home, I asked how they wintered. He replied in a "matter of course" manner: "First rate, sir." "How many had you in the fall?" said I. "Eight." "How many now," I inquired; "Eight, doing finely," pointing to 8 weather-beaten pine boxes on a bench on the south side of a fence, and 3½ feet from the ground, unprotected, except some rough boards nailed against the fence. There they stood in January, just as they did in August—no cellar, no chaff, no dead-air spaces, and no dead bees. I do not give this instance to attack any theory or practice, though I see that the great apostle of chaff hives has been no more successful than others. I will now give my own experience of 3 years with wintering on the summer stands. I use Simplicity hives, with frames the short way of it, instead of the regular Langstroth frame; by this, I am able to snugly tuck in a three frame nucleus, or a 15 frame colony by drawing forward or pushing back the division board. My chaff hive (if such it may be called), is a simple tight box with single pitch loose roof, taken off when we are handling the bees. This box is 4 inches larger than the hive all round, 23 inches high at the back, so there is no trouble in stooping over it. The four-inch space I fill with a chaff cushion, cut straw, or cut corn stalks does as well as either. I remove the cap, leave the duck quilt on, put on a thick chaff cushion lapping well over on the packing and they are safe in winter quarters. Last winter I put 24 up in this way, and as in the past, they all came out sound. I remove all packing and leave a dead-air space in summer, which is cooler and facilitates working. My bees are leather-colored Italians; the progeny of which I mean to cross this summer with Cyprean drones.

Stelton, N. J. G. W. Thompson.

Bees cared for, Doing Well.—Fifty per cent. of all the bees that were left on summer stands in this locality are dead, while about 2½ per cent. of those that were cared for are dead; besides the uncared for are very weak and build up slowly, while those cared for are full and running over. I had 8 swarms by the 16th inst., from 16 colonies that I had cared for: I don't know of another swarm yet in all this locality. Bees are doing well; nectar is plenty; bloom is flourishing and filling the air with perfume.

Robert Corbett.

Manhattan, Kas., May 19, 1881.

Bee-Keeping in Missouri.—Nearly all the bees are dead in this locality. I put in winter quarters last fall 165 colonies, and only have 50 left, and those very weak. A neighbor had 100 colonies and lost all; another had 45, only 10 left; another had 43, only 10 left, and so on; but few are left. All winter on the summer stands without protection, this being a mild climate. Some winters we have no snow, but the past winter has been the most severe one ever known. This is in general a splendid locality for bees. We have usually very mild winters and a vast amount of wild flowers, which commence blooming about March 15 and last until frost: among which are maple, hazel, gum, basswood, poplar, grapevine, wild locust, foxtail, boneset, sumac, blackberry, golden rod, ditney, Spanish needle, tar blanket, horsemint, white clover, etc. I am well pleased with the Weekly Bee Journal.

W. N. Craven.

Poplar Bluff, Mo.

Separating Swarms.—If Messrs. Bray & Seacord's manner of separating swarms is really effective, I hope that they will give a more thorough explanation of the operation than was given in their article on that subject in the Bee Journal of April 6, which is not considered satisfactory by bee-keepers. With your permission, Mr. Editor, I will call their attention to the matter.

J. O. P.

Winnetka, Ill., May 19, 1881.

Very Thin Foundation.—I mail you to-day, Mr. Editor, samples of comb foundation made on the Dunham machine, the lightest of which will measure fully 11 feet to the pound. I do not send it for the purpose of advertising, for I do not care to make it for any one, but to show that the Dunham comb foundation can be made equal to any, for surplus.

J. G. Whitten.

[These samples are as near perfection as we can wish, and shows what can be accomplished by the persistent efforts of the skillful manufacturer.—Ed.]

Out of the Woods.—I increased my bees to 40 colonies in 1880. I have never lost a colony in wintering. My method is on summer stands, in simplicity hives, with 5 inches of chaff and 1-inch lime cushion. I am the originator of this lime idea, and wrote the first letter on it, which was published in *Gleanings* for Dec., 1880, pages 579-80.

C. Lover.

Reisterstown, Md., May 10, 1881.

SPECIAL NOTICES.

☞Single copies of the JOURNAL are sent postage paid for 5 cents each.

◆

☞Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

☞The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

◆

☞When changing a postoffice address, mention the *old* address as well as the new one.

◆

☞We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

◆

☞Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

◆

☞We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

◆

A Safe and Sure Means of restoring the youthful color of the hair is furnished by Parker's Hair Balsam, which is deservedly popular from its superior cleanliness. 18w4t

◆

☞Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

☞Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

☞The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

◆

PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

◆

☞At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

◆

☞It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

Food for the Brain and Nerves that will invigorate the body without intoxicating, is what we need in these days of rush and worry. Parker's Ginger Tonic restores the vital energies, soothes the nerves and brings good health quicker than anything you can use.—*Tribune.* See other column. 18w4t

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

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HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 15@18c. for strictly choice white comb in 1 and 2 lb.boxes; at 10@12c. for common dark-colored and broken lots. Extracted, 7½@9½c.

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CINCINNATI.

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BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY—Being now between seasons, there is not much changing hands in honey. Stocks are small, and in many cases held at a limit above buyers' views, in anticipation of improved prices later on. The first consignments of new will probably not arrive before the middle of June. A shipment of 556 cases and 174 bbls, representing previous purchases, went forward to Liverpool this week. We quote white comb, 12@14c.; dark to good, 9@11c. Extracted, choice to extra white, 5¾@6¾c.; dark and candied, 4@5½c.

BEESWAX—21@22c., as to color.

STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., May 14, 1881.

◆

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Bee-Keepers' Exchange (J.H.Nellis).	2 75..	2 50
The 4 above-named papers..........	4 75..	3 75
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For Semi-monthly Bee Journal, $1.00 less.
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◆

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept.— —National, at Lexington, Ky.
— —Kentucky State, at Louisville, Ky.
Oct, 11, 12—Northern Michigan, at Maple Rapids.
12—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

◆

☞Quite often we receive a rather uncourteous letter because the BEE JOURNAL is discontinued when the time is out that has been paid for. We try to please all our subscribers, but it is not an easy task for us to determine who does and who does not want it so continued. So we must ask to be informed on the subject. The following letter is just received and is just the kind of a notice we wish all would send who desire to have it sent without intermission. We then put this mark, ‖ after the name on the wrapper label, and when so marked do not stop sending the JOURNAL until we receive an order from the subscriber to do so.

"Please continue my JOURNAL right along; if I do not send the money on the day it runs out I do not want you to stop it, for I want every number as soon as it is published. I will send you the money just as soon as I can make it convenient to go to the post office to get a money order. W. C."

Now, if all who desire it so continued would drop us a postal card, or mention it when they are sending a remittance, it would save us much trouble and themselves the annoyance of having the JOURNAL stopped.

With this number several hundreds of subscriptions expire, and we hope all will renew at once or else send us notice by return mail if they desire its continued visits.

◆

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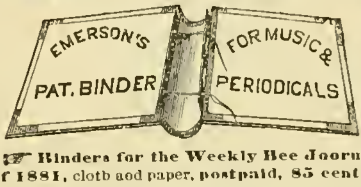

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☞ Having sold my interest in the supply and bee business to my brother, G. J. Pammel, I desire to have all letters addressed to him, who will answer such as punctually as they have heretofore been. I shall as heretofore study the natural history and habits of the bee, and report the same to the JOURNAL and *Instructor*, my favorite bee-papers. L. H. PAMMEL, JR.
La Crosse, Wis., May 18, 1881.

◆

☞ The Annual Meeting of the Society for the promotion of Agricultural Science will be at Cincinnati, on Tuesday, Aug. 16, 1881, the day preceding the sessions of the American Association for the advancement of science.

◆

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., October 11 and 12, 1881. DAVID EISHELMAN. *Pres.*
O. R. GOODNO, *Sec.*, Carson City, Mich.

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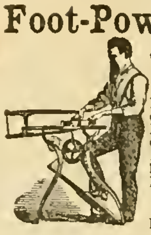

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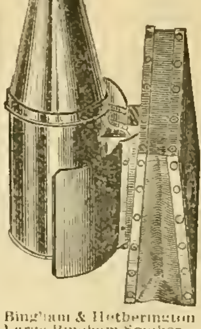

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CORRESPONDENCE

For the American Bee Journal.

Glucose, Foul Brood and Absorbents.

S. MACDONNELL.

I am much pleased by the attention, characteristic of Americans, which bee-keepers are giving to seeking special legislation for the benefit of those engaged in the "noble hobby." The employment of glucose (a material alike deleterious, as food, to man and bee) in the adulteration of Nature's delicious and wholesome sweet, should be suppressed by the strong arm of the law, and your conventions will not have existed in vain if they are the means of gaining this end. The regular communication, which of late years has been opened up between San Francisco and this city, has caused large quantities of California honey, delicious to the eye and with most attractive packing, to come into our market. Since the adulteration by glucose has been ventilated so freely in your JOURNAL I have looked on all American honey with suspicion, and have eschewed it in favor of the more homely looking Colonial article, for home consumption.

The necessity of seeking legislation for the suppression of foul brood shows that many bee-keepers with you are ignorant of the value of the many books and journals devoted to bee-culture. The suppression of foul brood is, I think, a matter which legislation alone will not effect. It may remedy the real evil of ignorance by compelling bee-keepers to acquire the knowledge necessary to combat the ailment and to treat it according to rule, a point which would, perhaps, be gained as easily by a greater diffusion of bee-literature.

The experiments in absorbing moisture in bee hives, referred to in your number of the 16th of February, are very ingenious. It seems to me, though, that not only is it advisable to find some material to absorb moisture, but also one to absorb carbonic acid, the product of the respiration of the bees. This slaked lime will do, but slowly. If my knowledge as an amateur chemist is not in error, I think that caustic potash would do so more readily, and also absorb moisture. For absorbing moisture alone, chloride of calcium would be effective, perhaps to such an extent as to keep the interior too dry, if such a state be possible.

I have much pleasure in adding my acknowledgment to the many which you have already received of the value of the Weekly BEE JOURNAL. It is marked not only by the variety and extent of its subjects, but also by the fairness and fearlessness with which all matters of controversy are treated. The change from a Monthly to a Weekly is a great benefit to subscribers.

These Colonies afford a splendid opportunity for the cultivation of bees, but unfortunately only a little is known of the scientific management. Our farmers and fruit growers keep bees in boxes, in some cases in considerable quantities. They are alive to the benefit of robbing by driving the bees into an empty box, in preference to using sulphur, but beyond this no step in advance has been attempted, with but one exception, that of a gentleman having a bee-farm within 7 miles of Sydney, where 250 colonies in frame hives are to be found. Here, however, the progress has stopped with the frame hives, as no superiority is attempted beyond the use of large bell-glasses.

The summer now drawing to a close has been unusually bad for bee-keeping, owing to the severe drouth which withered up all honey producing flowers, with others. So ruinous was the dry season to plant life that our horticultural societies were obliged in most instances to abandon their exhibitions on account of their being nothing to show.

Last winter was unusually warm during the days, but the nights were sufficiently cold to cover the water in my fowl troughs with a thin coat of ice. Generally we have weeks together of fine, dry, sharp weather, with frosts frequently at night. When rain sets in, the temperature rises and the rain is accompanied by a driving, searching wind. During fine weather it is seldom too cold for bees to fly and gather honey and pollen, although in but small quantities. Mignonette bloomed through last winter, when it was continually made merry with the hum of bees. The bulk of the bees remained in a cluster in the center of the hives, breeding being evidently abandoned.

I imported a quantity of wired foundation from Mr. A. H. Newman. Before its receipt I made a few sheets of plain foundation by dipping a plaster mould into molten wax. The home-made article was rough and clumsy—the imported was beautifully finished, nevertheless I found that when a sheet of each were placed side by side in a hive, the bees invariably commenced operations on the home-made unwired article. I have been unable to tell whether it was the wire or the material used to prevent the wax sticking to the roller, to which the bees objected.

Sydney, Australia, April 14, 1881.

For the American Bee Journal.

Cleansing Moldy Combs.

A. G. W.

Thinking some of the readers of the BEE JOURNAL may be troubled with mildew and mouldy combs which they have stored away, I send the plan I pursued to cleanse them.

Placing upright a plank, 2 inches thick and about 6 feet long against a building, I put a frame of comb upside down upon it, the whole side of the comb toward me with the cells slanting upward. Then taking a Whitman's Fountain Pump with the sprinkler attachments, I "dose" the comb.

In this position of the comb, you get the pump at the same angle as cells, and throw water to the bottom of them. On the empty comb and those containing fermented honey, I throw the water hard, washing the cells out clean. With sealed honey I do not squirt so hard. After washing one side, I turn the other and treat it the same way.

The cells not sealed will now be full of water. Taking the bottom of the frame in the right hand, and the top in the left, hold it flat before you. Then give the frame a succession of upward jerks toward the left, when nearly all the water will be removed. Leave them upside down for half a day or so, until dry, when they are ready to use or store away. This may seem tedious, but it surely saves the bees considerable work, if in fact they could do it at all, as some of my combs were covered so with mould the cells could not be seen.

Working as well as it does in this case, I believe the pump would do splendid service in washing dead bees out of combs, at least it will do to try. It would also be a good means for introducing salicylic acid, sulphur etc.

Danville, Ill., May 21, 1881.

For the American Bee Journal.

How to Prepare Bees for Shipping.

J. HOPKINS.

Having just received 2 colonies of Italians from Mr. R. Wilkin, San Buenventura, Cal., I have thought that by stating how they were packed, the condition they arrived in, etc., the knowledge might be valuable to others.

I have read your editorial, page 12, vol. xvii, on the above subject, and think on one or two points an improvement might be made.

The hives my bees came in were 8 framed "Langstroth." tin rabbets, bottom board flush with entrance nailed on to body of hive, cover flat with 1 inch strips, 1½ inches wide, nailed across the top at each end: from one end of cover toward the centre, over the middle frames, a piece about 9x5 inches sawn out, and 1 inch strips 1½ inches wide nailed round the edge on upper side. This hole was covered with wire cloth on under side, a sponge laid on that, and then covered with wire cloth on upper side, and the cover screwed down. The frames contained old tough comb, and where they had not been built right down to the bottom bar strips of wood were joined in between the comb and bar, making it secure. Two wire binders were put round each frame, ⅓ from each end, and in one of the centre frames a flat bottle containing water was fastened with wire, for which a part of the comb had been cut away next to the end bar; this, of course, was neck downward, corked and some lampwick communicating with the water. The frames rested in a notched strip on bottom board the width of the hive (not nailed), and two notched strips secured them on top, the cover going down on these, held all firmly. The entrances were covered with wire cloth, and directions for giving water on the sponge were pasted on each hive.

The bees, by date of letter received, must have been confined in the hives about 6 weeks. On arrival, I found one to be in splendid condition, although there were a large number of dead bees in the hive; the other was not in quite so good a condition, owing to insufficient ventilation, caused by the entrance being clogged with dead bees; both were suffering slightly with dysentery, from which, however, they are recovering. About a gill of water had been used from each bottle. There was no sealed brood in the hives on arrival, but both queens had commenced to lay, as there were hatched larvæ in some of the cells. They are now working away splendidly. The hints gained by this shipment are:

1. Do not tack wire cloth over the entrance, but use a hive with a portico and tack wire cloth over that. This allows the bees to drag out their dead and clean the hive; and I have no doubt would tend greatly to prevent dysentery.
2. Do not neglect the bottle of water inside the hive, as by this means they are not so dependant on the water from the outside, which is liable to be neglected.
3. Arrange the sponge so that it may be taken out and wetted, instead of water being poured on.

I believe that bees packed in the above way with plenty of sealed brood and honey at starting, would travel safely round the world.

New Zealand, April 10, 1881.

For the American Bee Journal.

The Three Bands of Italian Bees.

DAVID RICE, SR.

My father kept bees, and in my youth I was familiar with their management. For the past 25 years I have kept bees, and I have a mania for fine bees. About 13 years ago I bought the first Italian bees I ever owned, giving $10 for a fine queen, but her progeny did not come up to my expectations; they showed only 2 yellow bands besides the connecting segment. I have bought many since in the hopes of getting those that would produce the 3-banded workers, but I have so far been disappointed. Last summer I went to Mr. Dadant's apiary and examined his bees, and bought a Cyprian queen, but I did not see any there with 3 full bands, though they had some of the finest I ever saw. Mr. Dadant said, in the Weekly BEE JOURNAL, No. 12, that in Italy and Germany they count but 2 yellow rings; they do not count as a ring the first segment to which the thorax is attached. Had I known this years ago I should not have purchased so many queens, trying to get a third ring besides that segment.

I find it very difficult to keep an apiary up to the standard of purity. Queens will mate with a scrub drone as quickly as with fine pure stock, and in fact, seem to prefer them, for though I have discarded all native stock years ago, more than ½ of my queens have been fertilized by black drones, and yet there are not over a dozen colonies of black bees within a radius of 4 miles.

I have wintered some of my bees in the cellar for many years, and never lost a colony, except by starvation. My cellar is dry and well ventilated, and never freezes. I always give plenty of upward ventilation, and yet the hives and combs get damp and moldy. I do not like cellar wintering—I do not think it healthy.

The plan of wintering I like best is to make a box, 6 inches larger than the hive, all around and above, taller on one side than on the other to give a slanting roof; then fill in with chaff, straw, hay or leaves, and cover the top with boards. I let them remain so till late in the spring when it is warm; they do not fly out every time the sun shines in the winter. In the spring they are strong and healthy. I have practiced this plan for some time with excellent results.

I have wintered bees in many different hives and by various methods, and have found that they always furnished themselves with all the moisture they needed, and even more.

I feel jolly; I have saved half of mine during the past winter, while so many have lost all. My bees had but little honey in the fall and what they did have was of very poor quality, and I expected great mortality. I hope the present season will yield plenteously.

With the multitude, I welcome the Weekly Bee Journal. It is the best, cheapest and most reliable bee literature of the age.

Richfield, Ill.

For the American Bee Journal.

Wired Foundation a Success.

J. E. SOLOMON.

The season has come when every bee-keeper should know how to obtain the most profit or pleasure from his bees. For the last 2 or 3 years I have watched the experience of other bee-keepers with comb foundation as reported through the Journal, at Conventions, and elsewhere, and I concluded that the application of it was a failure, the chief difficulty being its warping out of position and eventually falling to the bottom of the hive, causing loss of labor as well as disappointment, although some seemed to have success with it. But I could not help thinking that the invention of foundation was a grand step in the right direction, and hoped that some way would be devised so that whole sheets could be used in the brood chamber without fear of sagging or otherwise injuring the occupants. Hearing that the Given machine had overcome the difficulty by pressing the sheet of wax into comb and fastening it into the frame at one operation, holding it in its proper position by the aid of fine wires indented in the wax, I felt so sure that the sagging difficulty was overcome that I at once wrote to Mr. Given about the matter, and finally purchased a machine for making wired foundation in the frame. With wax about 6 Langstroth sheets to the pound, and my machine, I have made hundreds of wired frames, ready to be placed in the hives, and as soon as swarms issued I put in a proper number of frames, introduce the swarms to their new homes, never thinking of sagging or getting out of place, even with a large swarm in the warmest weather.

On examination I generally find several combs containing a patch of honey or eggs, or both, in from 6 to 10 hours, and in a few days the whole hive would be full, every comb nice and true, and every bee to be hatched in those combs would be a worker and able to help support the family—no idle drones or "lazy fathers of the hive" to feed and nurse, which is no small matter to consider when we have a large number of hives.

I noticed in some article relating to wired foundation that it was destructive to the brood hatched in the cells through which the wires pass. I have examined very closely, with a friend of mine, the young brood as they emerged from those identical cells, and we pronounced them as perfect in all respects as those from any part of the hive—if there is any difference, my microscope fails to show it. At all events I am perfectly well satisfied that I have a great prize in the Given Wired Foundation Press, with which I can make a superior article of foundation, either with or without wires, thick, medium, or very thin, for starters in sections or boxes, and all with equal facility. I would not like to part with my machine for 5 times its cost if I could not get another. I think 4 days on good foundation equal to 10 days on empty frames.

I have watched with great interest, during the past 18 years, the rapid strides some inventive minds have made in regard to bee-culture for profit, as compared with the superstition of the past, which for ages have reigned supreme. With the information we receive from the excellent bee periodicals it would be surprising indeed if something wonderful was not accomplished. Now bee-culture is a science pretty well understood; a few years ago it was covered with the thick mist of ignorance and superstition. In a great measure we owe what we know about the apiary and its management to books and journals devoted wholly to the subject, of which I can truly say I think the American Bee Journal one of the very best; and anyone, whether professional or amateur, desiring a knowledge of the hidden mysteries of the hive, has no excuse for being ignorant, if he will take the trouble to read and learn the lessons therein contained.

Brighton Village, Ont.

For the American Bee Journal.

Calling Things by Wrong Names.

O. O. POPPLETON.

In the Bee Journal of April 27 is an article written by Prof. Cook, giving the results of different modes of wintering bees at the Agricultural College. I always take very great interest in anything from his pen, but I want to indulge in a little friendly criticism on this article.

While the Professor has not said in so many words, that the hives he tried to winter a part of his bees in were chaff hives, yet there is no question from the entire tenor of what he writes but that is what he thought they were, and was the impression he intended to convey. But has he not called those hives by a wrong name, thus conveying a wrong impression and almost entirely nullifying the value of his arguments? A hive packed with straw around four sides and chaff on top, is not a chaff hive in any sense of the word.

Some may think this a small mistake but to me it is a very important one. I have used chaff hives for the past 7 winters, and my experience has proved that the finer and cleaner chaff is the best. I have entirely discarded the use of the coarser kinds of chaff, such as that from wheat and oats, and use only that from timothy seed, and I go to the trouble of even sifting that, so as to have it as fine and free from coarse particles as possible. I use a thickness of only 5 inches of chaff around my bees, but I prefer that amount of fine chaff rather than 3 feet of straw around them.

I hope Prof. Cook will continue his experiments in different methods of wintering, and that he will give real chaff hives a trial. I would caution all, however, against the use of oat chaff, for that has a decided tendency to become damp when used around bees.

I am not among those who think any one method of wintering to be all right and all others wrong. I simply know that chaff-hive wintering in this section has been more uniformly successful than cellar wintering, and I am inclined to think that the report, heavy losses by wintering in chaff hives, can be traced to other causes, such as poor condition of colonies in the fall, the use of straw instead of chaff, etc.

My own loss is 6 out of 115, all in chaff hives, and a neighboring bee-keeper, in a card received yesterday, says, in regard to his bees, that "some are good. some light and many dead—out-door wintering with me has been successful—no loss." He had some 40 or 50 colonies in chaff hives, out-of-doors, and nearly 200 in the cellar, thus making a direct contrast with Prof. Cook's experience, only he used chaff, while the Professor used straw.

I am among those who at first had doubts about the value to honey producers of a Weekly Journal, but those doubts have gone. News in our business, as in any other, is worth so much more if only 3 or 4 days old, instead of that many weeks, and I hope we can always keep at least one standard Weekly Bee Journal.

Williamstown, Iowa, March 3, 1881.

For the American Bee Journal.

Wintering Bees—A Few Facts.

H. D. BURRELL.

As nearly as can be ascertained by careful inquiries, from about 1,500 colonies of bees in Van Buren Co. last fall, not over 250 colonies are alive now. My loss is 75 from 153. It is difficult to find out the exact facts, as many will give only evasive answers to inquiries about their losses.

Why is it so many have died? Some have starved, but the main trouble has been dysentery. Now what are its causes? One able writer says confinement, but facts do not seem to prove that the only cause. The past winter my bees were confined about 130 days, yet ¾ of them showed no signs of disease until April. From March 6 to 10 it was mild and pleasant here, and bees flew well; 28 were dead from 153. Most of the remaining colonies were strong and healthy, and we felt confident but few would die. But alas! another month of winter followed, and in 3 weeks from the time they flew well dysentery was playing sad havoc with the best colonies. Now why did these 3 weeks' confinement in the spring cause disease in these colonies when 130 days' confinement did not in the winter? In the winter of 1879-80 our bees were not confined 6 weeks at one time. They were carefully protected with chaff on their summer stands, and the winter was mild, yet before Jan. 1 many colonies were dead from dysentery, and before May first, 36 per cent. were gone from the same primary cause. Surely confinement was not the cause of the disease.

For 40 years Thos. Kemp has lived on a farm, 3 miles south, and for nearly that time has kept bees. He "can't manage your new-fangled hives" though. He tells me (and he is well known as a reliable man), his bees never had dysentery but once (in the spring of 1872), before this season and he seldom loses a colony, except by starvation. Last fall he had 20 or 25 colonies, (he "never counts them, and don't know how many there are,") in old box hives. Many have been used so long the bottoms have rotted. A couple of boards are thrown on the ground, often a couple of inches apart, and the bottomless hives set on them. No arrangements are made for surplus boxes, but when he wants honey he "takes up" a swarm. Last winter 2 died and 5 came out weak, and as bees could get out or in at a dozen or more places, and they received no attention, they were robbed out.

Last season I bought 16 colonies of him, and never had better working stock in my apiary. One colony produced over 100 lbs. in sections, notwithstanding the poor season. I Italianized all but 6 colonies of them, which I saved to see if they would winter better than Italians, but they could not stand civilization. All died. Now why has not confinement killed his bees?

H. E. Bidwell told me he once buried several colonies, and as an experiment left them in the ground one whole summer and 2 winters, yet a fair portion lived through it all.

Absorbents are now generally regarded as essential to successful wintering of bees. Last fall about 1-5 of my colonies were arranged with absorbents about them, and carefully packed with chaff on the summer stands. The balance were placed in packing boxes, but chaff could not be procured for packing them until after winter had set in. The brood frames were covered with enameled cloth, and that by a ⅞ inch solid board. Hoping mild weather would soon come, and absorbents could be arranged, the boxes were filled with chaff. Mild weather did come—in March—and these colonies, almost hermetically sealed, save an entrance at the bottom ⅜x4 inches, were in better condition than those arranged with absorbents or upward ventilation.

Facts seems to prove that none of us know much about wintering bees. A few seem to be successful for a time, but sooner or later the dread scourge comes, and empty hives are left to tell the tale, and refute pet theories. The theory that impure honey causes the trouble seems best substantiated by facts. If I knew all my hives contained perfectly pure stores and good strong colonies of bees not too old, I would not fear loss under almost any circumstances; while if I knew that they contained impure stores, I should expect a heavy loss no matter how they were protected, if they were confined a long time.

Bangor, Mich., May 9, 1881.

[Our correspondent propounds queries to which only suppositious answers can yet be given. We have so often given our views, that it is hardly worth while to repeat them at this time.—Ed.]

For the American Bee Journal.

Using Separators, Foundation, etc.

JAMES HEDDON.

Do the largest and most "successful" honey producers use separators? I believe not. My experience with a box and a half of tin is decidedly against them. I wonder what Mr. Doolittle saw the first year he used them that caused him to wish to "divide the bees as little as possible" the second year.

My method of applying sections, without separators, must be in some way superior to his, for I crate 99 out of 100, on an average, and with Moore's style of glassing (which I count the best extant) I can glass a large majority, in good style. I do not propose to use sections without full sized sheets of comb foundation in each and every one, separators or no separators. (This is said not only in behalf of my trade in foundation, but also that of Messrs. Alfred H. Newman, A. I. Root, J. H. Nellis, Chas. Dadant, and seventy or eighty others, who dabble slightly in its manufacture or sale). Yes, it is true, that we do not need to attach any costly and complicated contrivance to make our chosen surplus system work to our perfect satisfaction.

The method I practice I *think* the simplest and most rapid of any extant. They are in use by numerous producers, and I have never known one to abandon it for any other. The reason I discarded the brood frame system was because the sections were so stuck up with propolis. I refer to R. A. Burnett, of Chicago, on the comparative cleanliness of sections received from myself and others. But suppose for logic's sake that I am untruthful, does that change the law of cause and effect? Do natural principles depend upon my reputation for their existence and regular action? Cannot Mr. Doolittle give us an article whose points are based upon reason, and not upon his personal experience, of which we *know* nothing. His wonderful experience makes good seasoning for his general dish, but is not a very palatable commodity when taken all alone. While I would be far from attacking Mr. Doolittle's reputation for truth, I still hold strongly to "reasons why," for proofs. I hope his attack on my motives *was* "a joke," and here let me say that I will do my very best to give him all he can attend to in any well meant discussion that he may enter into, without taking time for "jokes."

Notwithstanding I make comb foundation to sell, that does not change the fact that that article, properly made and used, is becoming a staple—yes, is one now. The old and modern prices go to prove it. When I was experimenting with bogus foundation 4 and 5 years ago, and condemning the article (as Mr. D. is doing now), Prof. Cook and others predicted that I would be using and selling it soon. How correct that prediction was! I hand the same to him. I know the road, and know Mr. D. is "coming."

I find that the bees will draw out foundation so much faster than they can secrete wax (to say nothing of the time of gathering the honey it is made from and the time spent in building it), that during the "rush" is just when we get most profit from its use. Foundation should (especially for boxes) have a thin base and *soft* line, then the septum of the combs from it will be like those of natural comb, and the line being soft (less in size than the cuts between the dies would take), the bees will make astonishing progress with it. Not one consumer in one thousand will ever notice anything bulky about the comb.

Is it true that the combination top and side-storing system *necessitates* these sections? My method of adjusting sections admits of their removal separately "the moment one is finished," which we know has its advantage in the way Mr. Doolittle speaks of. But that advantage is more than off-set by the great amonnt of extra labor it requires to do that to the letter. There are certain times of the season when it is not of so much importance—when honey is coming in and combs are being finished up rapidly. I have no trouble in removing a single section, because I do not put the next section just where the full one came from, but shove the next fullest up where the vacancy is, and so on, and put the new section (which is not empty, but full of comb foundation) down at the lean end of the row.

Mr. Doolittle's closing sentence in his article on separators, in the Weekly Bee Journal of April 27, is worth more to me than all the rest of that article—my sentiments exactly.

I construed Messrs. Greiner Bro.'s article as a disclaimer against tin separators as "compared with wood," and after carefully reading the article again, I can place no other construction upon it. I did not pursue the discussion for the sake of being "on the contrary side," but because my experience had proven I was correct, as I had faithfully tried wood, paper and pasteboard, as well as lots of tin. I fail to discover any acrimonious feeling in any of the correspondence except their last letter, which was undoubtedly hastily written.

Dowagiac, Mich., May 18, 1881.

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For the American Bee Journal.

Bee-Keeping in the South.

A. F. MOON.

We are often asked if the South is a good location for successful bee-culture. There are locations where large yields of honey have been obtained. but such locations are not so desirable for living in, for they are generally near low lands. Northern Georgia is about medium; in fact, it is about the same all over the State, with a few exceptions. The main dependence for a large yield is honey dew. This in some seasons and in certain localities is very great. A gentleman, living 15 miles from this city, informed me yesterday that his bees had averaged about 75 lbs. to the colony during the past 10 days, while here none had been seen. This honey is about the color of the buckwheat honey of the North, but is very thick and rich, though sometimes a little strong, and in Eastern markets would be classed as second quality. But little white clover or linden honey comes into market in this State, yet some fine honey is obtained. We have 2 months in which there is a great scarcity, that is July and August. I think this might be greatly counteracted by sowing buckwheat; although this plant is so greatly operated upon by climatic influence that some seasons it yields but little honey. Its growth in the South is entirely different from that in the North. In the South it keeps up a continuous bloom from its commenctng to blossom until fall, ripening and flowering at the same time, while in the North it ripens like wheat and other grains.

In January I went into a flower pit that had been closed for some time; there were several rose-bushes in bloom, and, strange as it may appear, each one was covered with honey dew as plentifully as I ever saw it in the forest. Upon examining it I found the small buds were covered thick with the rose louse. There were nearly 200 plants besides the roses, in the pit, but no honey dew on one of them except the rose-bushes.

As to the South being a great honey country, I will say that it is about medium. There is one thing, however, that is very desirable besides the honey production, it is one of the finest climates that a person could wish to live in. We have good water aud as kind and generous people as we ever wished to live with To our Northern friends, who so often write us about the South and her people, let me say, if you wish a quiet, peaceable home in the sunny South, you will find among the Southern people a generous welcome; they know no South, East or West; all is peace and quietude, with law abiding people.

Rome, Ga.

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For the American Bee Journal.

Upward or Lower Ventilation.

A. BENEDICT.

My experience is that bees require more ventilation in the winter, to be healthy, than at any other time in the year; this should be only in one place. If the opening is at the top, the animal heat which is so essensial to the comfort of the bees, is continually escaping upwards. But if the ventilation is at the bottom of the hive only, the rarified heat would be retained, or have to make its way down, instead of up, to escape. It is a well known fact that bees stop every little crevice at the top of the hive. The little honey bee is wiser by instinct than man with his reason. The nearer we follow that instinct, the better success we will have with bees.

To have lower and upward ventilation, both at the same time, is wrong. A cold current of air is constantly passing through such hives, and bees cannot breed up to full colonies, until settled warm weather comes.

A few years ago when so many bees died, I visited several apiaries, to see if I could discover the cause. I found one man that had lost all his bees; he had but 1 colony left. This was a box hive on 4 pieces of bricks, which left 2 inches all around for ventilation. The other 14 hives in which the bees had died, had only an ordinarily entrance ventilation. I examined some of the hives and found the dead bees and combs wet and covered with mold. On examining the hive on the bricks, I found the combs entirely free from moisture or mold. I asked the man how long that hive had been there. He said for years; that it was one of his oldest colonies. (Moral: the laundress hangs her clothes out where there is a strong current of air, and they soon dry, instead of hanging them in a damp cellar where there is no air stirring.)

The late Dr. Kirtland of Cleveland, Ohio, one of the most noted bee-keepers in Northern Ohio, told me that one winter he lost all his bees but 1 colony, and that colony was in a box hive up in the forks of a tree. The bees had lit there, and it was difficult to dislodge them; he placed the hive over them and the bees soon took possession of it. He said, just for the novelty of the thing, he fastened the hive securely to the tree with a trace chain, and let it remain. He said that these bees were no more protected from the cold than they would have been if the hive had been suspended to a limb of the tree, without any bottom.

Years ago, I put my weak colonies in box hives in the cellar, bottom up, with a cloth tied over the hive to keep the bees in. This I did to save honey. The best way to winter movable comb hives in cellars is to remove the covers and tie over the hive common cotton cloth; this keeps the bees and combs dry. To winter well, bees should be kept cool enough, so that they will keep clustered, not running around over the combs.

The loss of bees in this section is about alike, whether in the cellar packed with chaff, or without any protection. About 7-10 are dead; nearly all had sufficient honey to have carried them through the winter.

A widow living 3 miles from me had 5 colonies last fall, and there are now 3 alive and strong. They were in movable comb hives, and put flat on the ground where they were hived. The old dry weeds and grass around the hive indicated that the hives must have been nearly hid from sight last summer. How is that for winter packing?

Benington, Ohio.

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For the American Bee Journal.

How to Separate Swarms.

BRAY & SEACORD.

In the Journal of April 20 we find the remarks of "E," of Kansas. In haste to reach the mail in time was the cause of the omission named. We will now give our plan with full particulars.

Make a box 3 feet long, wide and deep enough to hang the frames in, from the hive you use; place the frames in the box, same spaces apart as they are in the movable comb hive; make one entrance for the bees on the side of the box, twice the length and of the same height as the entrance to the hive. Make 3 or 4 division boards to fit the box, then make a cover with cleats on both sides (no end cleats) to fit the box; hive the swarms of 2 or more in the box; place the box in the shade until the next morning, then push the cover lengthwise of the box and you will see each colony clustered by themselves. Now, put a division board between each cluster, after which push back cover over box and set it where you wish to hive the bees. Place the hive in a convenient position to receive the bees, push the box cover back from over the first cluster, carefully drawing out the frames from the box, for the bees build comb 24 hours or less from the time hived. On some of the frames you will find comb; place those frames with bees on, into your hive. This will start a roar in the hive; the balance of the bees can be removed with a feather. When all the bees are in the hive, place it where you wish it to stand, and proceed with other clusters in a similar manner.

Having tried the above plan frequently we know it works like a charm.

I have received the Emerson binder for the Weekly Bee Journal. It is complete; no bee-keeper can afford to be without one.

Warthan, Cal., April 29, 1881.

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For the American Bee Journal.

Sundry Questions.

J. B. RUSSELL.

Please publish the following questions with answers for the benefit of myself and friends in the South:

1. If I confine my bees to a few combs, will I not lose the honey they put in the extra combs when they have them?

2. I notice that colonies left undisturbed have filled the outside frames with sealed honey, cast a swarm and stored a gallon of honey in cap already while those confined to a few frames in early spring, have cast no swarms, nor stored any surplus? Is it not reasonable to suppose that for this section, at least, it is best not to disturb bees, only so far as to see that they are increasing daily, etc.?

3. If I did not have all of the brood chamber of each colony filled with brood and sealed honey, as now, when the main season opened in June, they would use this crop (the best honey). to fill up the brood chamber, as I find they do not go into the cap till they fill up below; that is, the two outside frames and the tops and sides of all the rest—leaving the middle of all the centre combs for brood, and it is the same when I have many or few combs in the hive?

4. Should I confine them to a few combs and get less honey, as I have done? Wherein lies the fault?

While I am satisfied that to get the largest yield of honey, or any surplus at all, you must have the brood chamber overflowing with bees and honey, my experience is that this is the sooner accomplished by not altering their condition, as spring finds them, which with us, is with all their combs. And what puzzles me, is that Messrs Muth, Doolittle and others' experience is so different. There must be something in my management, and if you can, from this letter, see what it is and give me an idea, I will try to work it out better, and see if I cannot get more than three or four gallons, which was my best yield last season.

Cuthbert, Ga., May 23, 1881.

[1. No; you can extract the honey from those combs, then give them back as fast as needed, or use them in colonies where feed is wanted.

2. In a mild climate, like that of Georgia, contraction of the brood chamber in winter and spring is not so essential as in the North, unless the colony is very weak.

3. With good colonies, you had better lift the sealed honey combs from the outside, put in division boards, and leave the brood chamber to the queen exclusively; if a good queen, but little honey will be stored below after your June harvest begins.

4. The fault is principally in not having spread the combs fast enough. If honey is coming in lively in early spring, and nights are warm, not to chill larvæ, a fresh comb should be added to the brood chamber at least each four days. If you contract too much, it is at the sacrifice either of bees or honey, for both cannot occupy the same cell at the same time.—Ed.]

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For the American Bee Journal.

Sugar Syrup for Wintering Bees.

A. A. E. WILBER.

On December 24, I put 20 colonies in the cellar, 4 of which had sugar syrup, and the remainder natural stores. I left 21 on summer stands, 3 having syrup. My cellar proving too cold for such a winter, the mercury at a few times falling as low as 26° above zero, and remaining 4 days at a time. After the first one of such cold spell, I could detcet the smell of dysentery upon going into the cellar, but I hoped they might have a fly soon, but a suitable day for that did not come till most of them had died. On April 8, I removed those from the cellar for the last time, only 3 remained out of the 20 I put in last December, and these were the 3 out of 4 having sugar syrup; all those having natural stores, and 1 of those having sugar syrup, died with the dysentery. Out of the 21 left on summer stands, only 2 remained; 1 out of the 3 having sugar syrup, and 1 out of 18 having natural stores. Sugar syrup and cellar wintering are a little ahead; the two that died with syrup on summer stands, were the only ones that died without the dysentery. I can see now where I could have done better. If I had completed my cellar early and made it frost proof, given all my bees sugar syrup and put them in early, it would have been better; the cellar was not completed till after some zero weather, and when the hives were loosened from the stands, they came up with a heavy jar, which caused the bees to fill themselves with honey. I would like to hear from some one that feeds sugar syrup. I believe Mr. D. A. Jones recommends it. How has he succeeded in wintering his large apiaries? Fully 85 per cent. out of all the bees in this vicinity are dead, those packed in chaff not being exempt.

Kelloggsville, N. Y., May 21, 1881.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

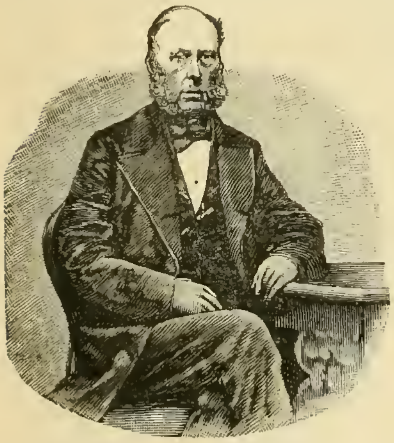
CHICAGO, ILL., JUNE 1, 1881.

Another Bee-Master Gone.

On May 2nd, at 8 a. m., Herrn Andreas Schmid, editor of the *Bienen Zeitung*, died at his residence in Eichstadt, Germany, aged 65 years, after a long and painful illness.

His name belongs to those illustrious ones, whose research, patient study and progressive thought, have given Germany the unquestioned first position in the theoretical department of scientific bee-culture.

While in Europe in 1879, we had the extreme pleasure of having a very interesting conversation with the illustrious departed, having been introduced to him, by the Baroness, widow of that late celebrated apiarist, the Baron of Berlepisch. At that time we exchanged photographs, and from the one he then placed in our hands, we have had the accompanying engraving made, and now present it to our readers:



Herrn Andreas Schmid.

Little did we then think that of all the noted apiarists present at that Congress, he would be the first to be cut down by the all-devouring scythe of time, which without distinction sweeps away the rich as well as the poor, the learned as well as the ignorant, and the savant as well as the peasant.

Never again do we expect to behold such a scene as we witnessed at that honorable Congress of Austria and Germany. There, though we had hired an interpreter to assist us in conversation, that estimable lady, the Baroness of Berlepsch, escorted us around, and personally introduced us to the leading apiarists of the World, who were in attendance at that Congress—among whom were the late Herrn Schmid, the Rev. Dr. Dzierzon, Herrn Emil Hilbert, Prof. Dr. Butlerow, of Russia, (who was the bearer of authority from the late Czar of Russia, to confer the order of Santa Anna upon the eminent Rev. Dr. Dzierzon), Prof. Louis Ritter Von Sartori, of Milan, Italy, Herrn Vogel, Herrn Karl Gatter, editor of the *Bienen Vater*, at Vienna, Count Kolowrat, Otto Schultz, and many other celebrities, who seemed knit together in the closest bonds of affection. We shall never forget the parting scenes, when many a kiss of affection was exchanged, accompanied by the parting tear.

It is now 37 years since the *Bienen Zeitung* was started. It is the oldest Bee Paper in the World, and is published semi-monthly. Among its valued correspondents, has been numbered the Rev. Dr. Dzierzon, the late Baron Von Berlepsch, of Coburg, Prof. Von Siebold, Prof. Leuckart, Dr. Donhoff, Dr. Kuchenmeister, Pastor Kleine, Pastor Schonfeld, Herrn Vogel, Dathe Rothe, Count Von Stosch, whose names are among the illustrious apiarists of the 19th Century.

It must be admitted that the Germans bear off the palm, for all the great advances in the theoretical knowledge of the bees, made for a generation past, have come from them.

The following is from the pen of the late SAMUEL WAGNER, our worthy predecessor, and will be read with interest as a part of the history connected with the late departed:

> In the earlier part of its career, the German *Bienen Zeitung* had to contend with difficulties. Bee culture had long been a subject of general interest and study in Germany. Various theories had been framed, to explain the mysteries which its advocates recognized as existing; and the authors and adherents of these several theories, clung fondly to their preconceived notions, defending them oft with intemperate ardor. So long as it seemed conceded that anyone of these theories might be true, and all of them were treated with equal defference, the *Bienen Zeitung* moved along smoothly. But when Dzierzon advanced his new theory, though modestly submitting it at first in the form of an hypothesis, a different state of affairs ensued. The old schools felt intuitively that if this new doctrine be true, it involved the subversion and repudiation of all the subsisting theories. It was at once made an object of attack from all quarters; and a violent controversy, not unmixed with acrimonious personalities, followed. Dzierzon defended his theory with great dialectic skill, for which his training and large experience in bee culture eminently qualified him. Then turning on his assailants, he exposed their fallacies and the inconsistency of their views, and arrayed against them the evidence of incontrovertible facts. Some of the old correspondents of the *Bienen Zeitung* began to complain and remonstrate, and finally many of them withdrew. But the truth was rapidly making converts on every hand; and when Berlepsch, who had vauntingly denounced the new theory, proclaimed his conversion; and Kleine Orttel, and other distinguished apiarists became its advocates, a new and highly intelligent corps of contributors soon made amends for the defection. The impartial course of the *Bienen Zeitung*, pending the controversy, was acknowledged; its policy vindicated; and, in its speciality, it now enjoys universal esteem.

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☞ Mr. D. A. Jones reports that *Apis Dorsata* has been found in Ared. We shall be able to give our readers the full particulars soon.

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☞ Farmers in central Illinois report winter wheat suffering from the chinchbug and Hessian fly. Thousands of acres are being plowed up to plant corn. Bee-keepers are not the only ones having disasters.

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☞ The Annual Meeting of the Society for the promotion of Agricultural Science will be at Cincinnati, on Tuesday, Aug. 16, 1881, the day preceding the sessions of the American Association for the advancement of science.

The Honey Market for 1881.

Although it may be premature, at this time, to hazard conjectures regarding the incoming crop and the prices likely to govern the market, yet we feel that bee-keepers cannot too soon realize the situation, and take advantage of every circumstance which may be made to contribute to their prosperity. We see, as yet, no reason to amend our auguries regarding the favorableness of the season and the bountiful honey flow in all the States east of the Rocky Mountain range, and the heavy harvest and remunerative prices which will be realized by those who have escaped disaster, or who may be wise enough to replenish their winter losses before basswood bloom puts in its appearance.

Reports are very encouraging from all quarters, and more especially from most of those districts where last season the honey yield was least encouraging. Up to this time the weather, since the late advent of spring, has been most propitious, and colonies have built up with marvelous rapidity. In most of the Southern States the honey yield has already been unusually gratifying, and the prospect is good for several weeks' duration. In all the Northern and Central States the showing was never better for a heavy summer harvest, and with seasonable rains and favorable winds, we may expect results that will astonish the most sanguine, and of a quality that will prove the superiority of American honey.

In California, however, the prospect is anything but encouraging. Recent advices, both public and private, from San Diego, Santa Barbara, San Bernardino, Los Angeles and Ventura counties, are of a somewhat discouraging nature. The blossom of the white sage, relied on for the lightest colored and finest flavored honey, is said to be a failure in many localities. This, in addition to the fact that the California market was about depleted of last season's crop, leaves but little to be forwarded for our home markets, thus putting the price under the control of our home producers.

However abundant the yield may be, there need be no fear of an over-stocked market. There never has been much attention paid to scientific bee-keeping in the Southern States, and, of course, but little honey on the market from there, so that however abundant their yield may be this season, it will not approximate anything nigh the shortage which will occur in the Northern yield in consequence of the loss of bees last winter. Honey has become a staple. and now that the old fogy producers were pretty well "frozen out" of the business last winter, we cannot imagine why this season would not be a favorable time for establishing a staple price. Why should not our local, district, State and National Societies take this matter up, and discuss it in their Conventions? Would it not be well to estimate the average cost of production, reckoning also the hazard, then after adding a reasonably liberal percentage for profit, fix a staple price for our commodity? We fail to recognize any other business of one-half the magnitude of the bee-keeping interest, wherein the producer has not at least a voice in fixing the price he is to receive, or calculate about the gross receipts on a certain amount of business transacted. We take this occasion to advise our readers not to be in too great haste about forcing a market. Europe will not produce enough honey this season for local consumption, and the foreign shipments from California will be comparatively light, therefore those who may have any to sell can, if they will, get good prices.

From a San Francisco price list of recent date, we clip the following comparative statement of transactions during the past three years:

> The number of cases of comb honey received were: 1878, 38,337; 1879, 8,443; 1880, 26,782. In addition to the receipts for 1880. there arrived 1,156 bbls. and 126 kegs. There was also considerable exported overland, and by sea direct, from Southern Coast points. the exact amount of which there is no data at hand.
>
> Exports for the past three years from San Francisco, Sacramento and San Jose have been:

	By Sea from San Francisco.		By Rail from S.F. & interior.
	Cases.	Lbs.	Lbs.
1878	4,978	518,714	1,254,989
1879	13,675	....	214,216
1880	7,890	150,806	861,050

> Of last year's shipments overland, 720,690 lbs. were sent from San Francisco, and 140,360 lbs. from Sacramento and San Jose. Receipts since January 1st, 1881, to date, 3,865 cases, 272 bbls., 49 kegs. Exports by sea for same time, 4,432 cases, 199 bbls.; by rail, exclusive of May shipments, 119,190 lbs. from San Francisco, and 34,530 lbs. from the interior. From Wilmington direct there were shipped to Europe last month 1,139 cases.

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☞ We were requested to write a synopsis of the lecture we delivered at Lansing, before the Central Michigan Bee-keepers' Convention, and incorporate it into the minutes. We have been too busy to do so, and must ask pardon for its omission.

AMONG OUR EXCHANGES

MISCELLANEOUS.

Queen Bees Sent by Mail.—Mrs. L. Harrison, in the *Prairie Farmer*, gives the following cautions to careless shippers:

> Queen bees have been sent by express and through the mails for years. Through the carelessness of some breeders, who forwarded them in bad shape so that the officials were stung and the contents of the mail pouch made sticky by the leakage of honey, an order was issued forbidding them to be sent by mail. But by the intercession of some prominent entomologists and apiarists the Post Master General last year agreed to consider them mailable matter, so long as the officials were not stung or the mail soiled with honey. The requirements were, that the bees were to be covered with two thicknesses of wire cloth, and that no liquid sweets were to be in the cage. Queen bees are now sent in the mail safely to the most remote settlements.

The Bee Catcher.—In the *Farmer's Home Journal* we find the following description of the red bird which destroys bees as found in "Audubon's Birds of America:"

> SUMMER RED BIRD—(*Tanagra Œstiva*).—Adult male, the whole plumage is vermillion, brighter on the lower parts, excepting the tips and inner webs of the quills, which are tinged with brown. Length 7¼ inches; extent of wings 11 inches. It is migratory from Texas to Massachusetts, and especially abundant in the interior of Canada.
>
> Adult female, the general color is light brownish-green, the sides of the head and under parts generally brown-

ish-yellow; quills deep brown, externally margined with yellowish-red.

This species feeds principally on insects, and especially coleoptera, some of which are often of a larger size than a bird of the dimensions of the summer red bird might be supposed capable of swallowing. It seldom alights on the ground, but prefers pursuing insects on the wing, which it frequently does from the dried twigs at the extremity of the branches.

A subscriber gives further light on the subject, to-wit:

I have just been reading your valuable paper, and see among other things, a question asked by a correspondent for the name of a red bird that has been destroying his bees. I suppose it is the same bird that I have been troubled with ever since I have been raising bees. I think it is the same bird that ornithologists call the fire bird, from his brilliant red. I have known him to be a destroyer of bees for years, and consequently declared unceasing warfare against him. My boy says they are more numerous this season than ever known. They only eat the thorax, then leave the abdomen of the bee. Our greatest trouble in bee-keeping is from birds. Wm. W. B.

Elizabethtown, Ky., May 7, 1881.

The Season in Indiana.—Mr. Frank L. Dougherty, in the *Indiana Farmer*, says:

With us fruit bloom has come and gone. We are now in the midst of the honey dearth between fruit bloom and white clover, the latter of which is beginning to make appearance, although as yet it contains no honey. The bees must be watched now, so as not to allow them to run out of stores. The queen should be kept laying to her full capacity, for it is on the bees raised this month that we must depend for our main honey crop. In an apiary of only a few colonies, seemingly in the same condition, we find some colonies will far outstrip others in brood-rearing, consequently for the best results we are compelled to take from the strong to assist the weak. Examine all the colonies, mark their condition, removing frames of brood and bees from those that can spare them and give to the weaker ones, thereby putting them in better condition for the honey yield when it comes. If this work be done in the middle of the day but very few of the bees removed will return to the parent colony, as at that time most of the old bees are in the fields at work. When 2 or 3 frames are given at one time it is better to take them from several hives, for by thus mixing them up they are less liable to injure the queen. In manipulations of this kind it is always best to ascertain the whereabouts of the queen, so as not to remove her from the hive.

Selling Bees by the Pound.—Mrs. Harrison remarks as follows on this subject in the *Prairie Farmer*:

A new industry has lately been developed, viz: that of selling bees by the pound. They are sent by express in boxes made with 3 sides and bottom of wire gauze; the top and ends are of of light wood. Little feeding troughs, in which candy is poured in a liquid state, which hardens on becoming cool, are fastened in each end of the cage. In these cages bees can be sent long distances safely and cheaply.

During the last almost unprecedently cold winter, many persons in the North and West lost all their bees, and yet have ⅔ of their investment in the hives and combs remaining. It would be better for those who have lost their bees to purchase a qeeen and bees by the pound, than let the moth-worms destroy the comb. We received bees by express (sent in the way described) yesterday, putting them on combs, giving also a frame of uncapped brood and honey, and to-day (May 18) they are working like beavers. Bees are being shipped from Texas, Alabama, and other Southern States to the North. The bees were not destroyed by "blizzards" there, and are now at the swarming point.

SELECTIONS FROM OUR LETTER BOX

Loss by Fire.—Last month my house was burnt. I lost all of my Bee Journals, honey extractor, over 700 lbs. of honey, and a lot of apiarian supplies. My bees gave but little surplus last year, and many died with dysentery early in the winter. Some were in the cellar and some packed in chaff on the summer stands; those left are now doing well. E. J. Rockefellow.

Farragut, Iowa, May 25, 1881.

Bee Losses in Virginia.—As near as I can learn the losses in Virginia among bees are about as heavy as in the North and West. My losses were less than 10 per cent. wintering on summer stands with chaff above. The first natural swarm issued May 2, unexpectedly, as I do not allow much swarming when attending the bees. Our season has begun handsomely. One hive kept on the scales gained 17 lbs. on the 15th, and 10 lbs. on the 10th. It is in full two stories. The locust bloom was very abundant; the *Liriodendron* is now blooming. I can get heavier work with the full size wide frames, holding 6 sections, 4¼x5⅔ in them, with clamps. I use both; but it is fun to compel bees to work above, by lifting brood up and placing wide frames between. Besides there cannot be too many bees, for one can put on a third story, as I have done till they could ripen and seal. It was in that way I got my heaviest yield last year, 96 sections filled from one hive. As the Cyprian and Palestine bees are coming into notice, I wish to suggest a better name for the latter. The Holy Land bee and Holy bee, (as some shorten it), is hardly the thing. Why not call them the Palestine bee? If it proves of value, it must have a name. J. W. Porter.

Charlottesville, Va., May 23, 1881.

[That is precisely what the Bee Journal has been calling them for some time. Syrian may perhaps be still better. At all events, to call them "Holy Bees" is *not* the correct thing.—Ed.]

Bees in Texas.—Bees in this locality are doing well; the prospects for a good honey crop are rather flattering. We have 80 colonies, about ⅓ are Italians, the others are blacks. We secured no surplus of any consequence from black-bees last season. We give the Italians the preference in all respects.

Flournoy & Foster.

San Antonio, Texas, May 20, 1881.

Does not want to Winter in Cellars.—I wintered my bees packed in chaff on their summer stands. I put into winter quarters 36 colonies and lost 9 by starvation, and one became queenless, which I wintered with another, leaving 26 colonies; 5 are rather weak, but are coming on finely. Drones commenced to fly yesterday. The first pollen was brought in April 19. No cellar wintering for me. J. Chapman.

Home, Mich., May 19, 1881.

How Bees have Wintered in Ontario.—I have been so "stiddy to hum" this spring, owing to my having a new place to fix up, that I have hardly been out among the bee-keepers at all. The echo of many sighs and groans has reached me however, and while I cannot give the percentage of mortality, I am convinced that the winter of 1880-81 has been a disastrous one for bee-keeping in Ontario, as in most regions of the North American continent. "Old style" bee-keepers are pretty well cleaned out, and not a few intelligent and up-to-the-times bee-keepers are in the same predicament. Mr. Ravel, the best practical apiarist in my locality, put into winter quarters 45 colonies, and in view of the misfortunes of others, blesses his lucky stars that he has 10 left. I don't know how Mr. Jones has succeeded. Does any body but himself? In his correspondence with me, he says nothing as to wintering. On that point he is silent as the grave. Perhaps no news is good news; I hope so; but I would like to have him "rise and explain" how those 1,000 colonies of his have fared during the unprecedented winter we have just passed through. So I think would many others. Wm. F. Clarke.

Listowel, Ont., May 12, 1881.

No Surplus Honey.—Judging from present indications this county will produce little or no surplus honey.

John S. Calkins.

Los Angeles, Cal., May 15, 1881.

Robinia Viscosia.—I would like to inquire if you know anything of the value, as a honey-producing tree, of *Robinia Viscosia*—clammy locust. I have been told that the bees are very fond of it, and work upon it in great numbers while in bloom. Arthur Bryant, Sr., in his work upon forest trees, states that it sometimes blooms twice during the season. As it comes into bloom before the clovers, and is valuable for timber, and of rapid growth, it might be worthy of cultivation by the apiarist, if its value as a good honey-producer is established. It is a beautiful ornamental tree. D. P. Norton.

Council Grove, Kan., May 19, 1881.

[Will some of our readers who are familiar with this tree, please give the desired information?—Ed.]

Honey Season in England.—We are having very dry weather here, with easterly winds, so that the bees have to be fed. We seldom expect a flow of honey till June has really set in, for 9 times out of 10 the spring is too cold for the bees to do any good on the fruit blossoms. Our first good crop is the yellow trefoil, or "none-such," which is in full bloom by the end of May.

Samuel Simmins.

Ruttingdean, England, May 11, 1881.

Bees for Pleasure.—I keep a few bees for the pleasure derived therefrom, and they never were so strong and doing so well at this season of the year as they are at present. White clover is beginning to bloom, and locust bloom is just passing away. We will soon have a profusion of European linden bloom.

H. H. Littell.

Louisville, Ky., May 20, 1881.

Losses in Winnebago Co., Ill.—An apiary of 2 colonies is what I had; I wintered them on the summer stands, packed in straw and chaff, and they starved to death. C. has 21 out of 40; H. 16 out of 46; both wintered in a house. S. has 22 out of 325; G. has 16 out of 16; M. has 6 out of 6; A. has 5 out of 5; A. has 22 out of 32; these all wintered in the cellar. M. has 1 out of 14; these were out-of-doors without protection. These are nearly all practical bee-keepers, and there are a good many farmers in this vicinity who had last fall from 1 to 10 colonies, but nearly all are now dead. I wish I could get the Bee Journal twice a week, or even daily. D. L. Whitney.

Rockton, Ill., May 26, 1881.

King-birds, Drones, etc.—I notice in the Bee Journal for May 18 an article about king-birds, in which the opinion is expressed that they catch workers as well as queens and drones. My opinion is that they catch workers alone for the honey in the sac; I have noticed them station themselves near the hives on some dead limb of a tree and dart out and catch the heavy laden ones as they approached their homes. I have also frequently noticed them perched on the dead weeds in the midst of a white clover field, and when a loaded bee started to go home the king-bird would dart out and gobble him up. I have also noticed the pieces fall, as though the bird had cut them in two, to swallow the part containing the honey sac. At a neighbor's house one day I noticed one of those birds perch himself on the dead limb of a peach tree, near 3 colonies of bees. I asked my neighbor why he did not kill the bird; it was eating his best worker bees. He said: "I reckon not." At that moment it darted out, seized something, alighting back in the same place. He told one of his boys to get the gun, and whilst he was getting ready it made 2 other sallies, each time getting something. He shot it, cut it open and found 3 bees, freshly swallowed. I encourage all around me to kill all they can, and kill all that come near me. Others should do so, too. I do not know whether drones and queens have honey sacs or not, or if the food they take goes direct to the stomach. If they have no honey sac the king-bird will not catch them. Long live the Bee Journal and its genial editor. G. W. Ashby.

Valley Station, Ky., May 25, 1881.

Origin of the Italian Bee.—The prevailing enthusiasm among bee-keepers concerning the different races of bees has, no doubt, induced an investigation concerning the origin of the Italian race of bees. Some suppose them to be a cross between the Palestines and black bees; I do not, however. What evidence is there that the "saddles" on the Cyprian bees are a distinctive mark? There is a certain insect of the beetle race, found on the Island of Madagascar in great numbers, which live on the nectar of plants, which have a very long neck; the plants are peculiar and require this feature in the beetles to obtain the nectar. These beetles are found on other islands, but have no such peculiarity, showing that the nature of the insect must comply with the requirements of the plant or it could not subsist. In many other instances similar changes have occurred in this insect, as shown in natural history. The Italian and Cyprian races may be the same—one generation may not have perfected the Italian race; it may have taken ages. One common trait is still found to correspond with all other insects which will never be wholly extinguished. L. H. Pammel.

La Crosse, Wis., May 10, 1881.

Loss 15 per Cent.—My bees wintered with a loss of 15 per cent. principally by starvation, by not being properly prepared for so severe a winter.

John F. Eggleston.

Eagle, Pa., May 24, 1881.

Experiments in Wintering Bees.—My loss in wintering was 7 out of 69, but I have lost two more since, by being robbed. My Italians stands the winter the best. One colony I wintered on its summer stand in a chaff hive; they are doing well. I wintered in a bee-house; there were put in 59 colonies the day before winter set in. The house was dry, dark, and in a uniform temperature, ranging from 42° to 50°; no artificial heat used. The wall, 2 feet thick, was filled with sawdust, and ventilated in under the floor and up through the ceiling and roof. They were taken out April 14, and 3 of the colonies were dead. Nine were put in the cellar about the same time the others were put in, and taken out about April 10; 4 of them were dead. The temperature of the cellar was too cold, (below 30°), about 15° colder than the bee-house.

J. H. Heard.

Flesherton, Ont., May 17, 1881.

Why the Defective Wings?—I have a colony that I believe will be ruined. A large amount of defective brood is carried out and some apparently perfect, which cannot fly, but crawl all over the ground by hundreds. There is no sign of moth in the combs, and the queen is a fine looking one and fast layer. I see nothing wrong inside except the brood, a large amount of which is pipped (uncapped). The bees were shipped by rail 60 or 70 miles, 10 days ago, but came all right so far as I could judge. Two other colonies are similarly affected, but not so bad; in the fourth hive but few of the drones can fly, but the workers seem all right. Peter James.

Waveland, Ind., May 23, 1881.

[The bees did not have ventilation enough when moved, which softened the combs and the outer ends of the cells were distorted, thus killing or deforming the young bees. With a very sharp knife shave off the surfaces of the combs where there is not sealed brood, and it may remedy the trouble.—Ed.]

CONVENTION NOTES

Sonth East Michigan Convention.

An adjourned meeting of the South Eastern Michigan Bee-Keepers Association conveneed in the Court House at Ann Arbor, on Thursday, May 12, at 9 a. m. The meeting was called to order by the President. The Secretary being absent, G. G. Pease was chosen Secretary *pro tem.* The attendance was not as large as was expected, on account of the busy season, and the discouragement attendant on wintering. The best method of wintering was the principal subject of discusion. Heavy losses were reported.

Mr. Douglas had only 5 left out of 29 in the Langstroth hive.

Mr. Ashley did not know what was the best method. Of 72 colonies last full, only 10 were now alive; he thought the box hives had shown the best results.

Mr. Gooddell had 4 in Gallup simplicity hives, put up in straw and chaff, which went through safely.

Mr. Bennett had only lost 18 out of 68 colonies of Italians in Langstroth hives in the cellar.

Mr. Bodwell had 41; some in simplicity and some in box hives; 15 came through, but they had dwindled since.

Mr. J. Hick saved 11 out of 16.

Mr. Pease had 4 colonies of Italians in Gallup simplicity hives on the summer stands, which came through in fine order; they were packed with chaff and straw.

N. A. Prudden had 42 in the fall, 5 in chaff hives of his own construction and pattern; they came through in good order. Out of 18 put in the cellar November 6, not taken out until April 6, 2 starved; the rest came through safely. He packed 15 on the summer stands with more loss. His 4 tenement hives packed in chaff all around the outside, come through in fine condition; he saved 30 out of 42 in all. Hives, 10 to 12 frame Gallup simplicity.

Others lost heavily, one 40 out of 70; another 20 out of 30; several lost all in box bives. The per cent. of loss is about 75 per cent. No general agreement as to the best method of wintering was arrived at. The subject of importing bees was discussed, and decided that further importation of Italian stock at present was unnecessary, as the Italians we now have are better than imported stock.

A committee, consisting of N. A. Prudden, N. Eastwood, L. W. Bodwell, G. G. Pease and R. Gooddell, were appointed to recommend a proper person for the office of commissioner on foul brood, in accordance with the recent act of the legislature.

The time and place for holding the next meeting was discussed at length. Some desired a union with the Eastern Michigan Association at Detroit; and others favored a meeting at Jackson, sometime during the State Fair. The matter was finally left to the decision of the executive committee, N. A. Prudden, G. G. Pease and R. Gooddell.

To the Bee-Keepers of Jackson and other parts of the district, I would say: Take the matter into consideration and correspond with me, and see if we cannot have a meeting at that time, and choose officers for another year. Let us hear from the bee-keepers of Jackson in particular.

N. A. Prudden *Pres.,*
and Chairman of Com.

(*Michigan Farmer* please copy.)

From the Michigan Farmer.

Coopersville Michigan Convention.

A meeting of bee-keepers was held at Coopersville, Mich., lately, with J. J. Robinson as Chairman, and Dr. E. P. Cummings as Secretary. Dr. Walling, who was called upon to state the conditions under which contagious diseases among bees developed themselves, said in answer that he thought foul brood among our bees was caused by a specific poison of a zymotic character, arising from dead bees, broods, and uncleanly surroundings which under suitable putrifying conditions propagate a specific poison, sporadic in character, which is undoubtedly transferred to healthy bees after plunder. The remedy must be something to destroy the spores and antizymic in its character. When bad, destroy the hive and its contents. Mr. Robinson remarked that he had great confidence in the virtue of salicylic acid as a remedy. Mr. Harling believed that what they called foul brood was dead brood; being exposed by swarming, the bees not being able to keep the brood warm, it died, became putrid and they called it foul brood. Mr. A. A. Dodge said he had seen the real disease and that it was a very different thing; very offensive to the smell and a mass of putrification and contagion.

Central Michigan Convention.

The Central Michigan Bee-Keepers' Association held its sixth annual session in the Pioneer Rooms of the Capitol building, at Lansing, on May 5, 1881. The day was pleasant and the attendance was large. For some time it had been announced that Thos. G. Newman, the gentlemanly editor of the American Bee Journal, would be present and deliver one of his instructive lectures; in addition to this, Prof. Cook, of the State Agricultural College, was to give an address on wintering bees.

At 9:30 a. m. Mr. Geo. L. Perry, the Secretary of the Association, escorted Mr. Newman from the Michigan Central depot to the Chapman House. After breakfast they went to the Capitol building, where Mr. Newman was formally received by Rev. W. J. Asworth, President, and other members of the Association.

At 10 a. m. President Ashworth called the meeting to order, and made a few well chosen remarks, reviewing the history of the Association for the past 6 years, giving the contrasts between the first and the present year, and pointing out the many benefits derived from, and the pleasure received in the prudent management of the apiary. He mentioned our distinguished visitor and gave him the following introduction: Ladies and gentlemen, I have the honor and pleasure of introducing to you Mr. Newman, of Bee Journal fame.

This occasioned loud and continued applause. A large number of Senators were present who favored the passing of the Root Adulteration Bill (a bill to prevent adulteration of food now before the Legislature), and understanding that Mr. Newman was the "Chicago man" that "so energetically opposed the adulteration of honey with glucose," they had a little cheer of their own.

Following this was the usual proceedings of conventions, viz: Secretary and Treasurer's report, election of officers for the ensuing year, appointing committees of inspection, etc.

Mr. Baker moved that the President call for wintering reports, and requested the Secretary to report them in the minutes.

Prof. Cook then entered the room and brought with him his usual amount of good feeling and advice.

Mr. Brown described how he had buried 11 colonies, similar to the method that farmers bury potatoes, but with more care. Mr. Brown states that he gave upward ventilation by the use of tile, that his loss was but 2, and that his confidence in this method sufficient to induce him to try it next winter. He gave this plan at the State Convention last fall, which was looked upon with doubt by Prof. Cook, T. F. Bingham and James Harper. His statement of success caused some further inquiry.

Mr. Newman said it was a similar plan to that recommended by Mr. Quinby. It was successful some winters, but he advised caution.

Prof. Cook said he had made careful experiments in this method of wintering and considered it nothing more nor less than a cellar, with the disadvantage of admitting of no examination. The Professor gave some experiments of the same method made at the College, and thought Mr. Brown's experience was the exception and not the rule.

Mr. Robinson, of Pewamo, one of the largest bee-keepers in Michigan, said he had wintered over 200 colonies in a bee-house at his home apiary, a large number at his branch apiary, and had comparatively little loss; he thought much of the loss in bees resulted from neglect in preparing them for winter.

Mr. Baker described his method of successfully wintering in the cellar, as did many others.

Mr. C. Case, of Eagle, showed the best record of any one present, having made a fall count of 65 and only lost 4 in winter. Mr. Case is a thoroughly practical bee-keeper and devotes his whole time to his bees. He wintered in a single-walled hive, in a dry cellar well ventilated, and kept it perfectly dark.

Mr. C. E. Waldo, of Grand Ledge, lost ⅔ of 86 colonies. He had tried cellar and out-door packing; he also had a number in chaff hives. His loss was about the same by the 3 methods. Mr. Waldo considered the long confinement the cause of loss in winter, for he had taken every means to save his bees.

Mr. Geo. L. Perry, the only one in this vicinity that makes a special use of the chaff hive, had only 13 left out of 43 last fall. He considered the chaff hive all that is claimed for it, viz: that it will keep bees from freezing, for he lost no bees until March 20; he had a cider mill within 60 rods of his apiary, and the bees worked on the pomace for 10 days, and had much sour honey in the combs gathered after packing for winter.

Many others spoke of their wintering, but all gave statements of 50 per cent. loss.

Prof. Cook gave the college report; 10 were put in the cellar and only 5 are now alive; 4 packed in one foot of straw, all dead; one in Shuck hive, dead.

Mr. Newman said that he had made a thorough canvass from his large correspondence, from Maine to California, and the loss was 50 per cent all over the Northern States. Michigan and Illinois reports were not more favorable than Kansas or New York; it is only one of the adversities common to any business. As the prospect is flattering for a good honey yield, the few bees left will be likely to gather more honey this year than the many did last season.

The Secretary, having made the canvass of the Convention, found that out of 743 colonies shut up last fall only 238 are reported alive, and many of them weak and not out of danger. Many old bee-keepers that have grown gray in the science said that the last winter was the worst they ever knew. All but one said that the long confinement was the cause of their losses, and he (poor fellow) said he used 2 sheets of foundation and knew that the patent stuff killed his bees.

The meeting then adjourned to give time for the examination of the numerous exhibits.

The afternoon session was even more interesting than the morning; many citizens came in. Several of the leading papers of the State were represented, and a large number of ladies were present. After calling to order, the Association was entertained by an address from Mr. Newman. His subject, selected by the Association, was: "The rise, progress, present condition and future prospect of American Apiculture." Mr. Newman spoke extemporaneously, and delivered an address in his usual free and sprightly manner, interweaving occasional wit, sufficient to command applause.

The following were unanimously elected officers for the ensuing year: President, Rev. J. W. Ashworth; Vice Presidents: Eaton Co., C. E. Waldo; Ingham Co., James Harper; Clinton Co., C. Case; Shiawasse Co., L. P. Bailey; Livingston Co., W. K. Cole; Calhoun Co., B. Salisbury; Jackson Co., C. B. Smith; Secretary, George L. Perry; Treasurer, L. B Baker.

Prof. A. J. Cook read the essay on wintering bdes at the College, as published on page 155 of the Weekly Bee Journal. After closing his remarks Prof. Cook invited Dr. Root, member of the Senate and mover of the famous "Michigan Adulteration Bill," to favor the Convention with a few remarks.

Dr. Root, in a slow and easy manner, made some fitting remarks on the science of apiculture, and the rights of bee-keepers generally. Finally, touching the subject of adulteration, he warmed up to that quick, positive tone and expression that so characterizes his speeches on the floor of the Senate.

The Convention next listened to some timely remarks by Mr. Robinson, of Pewamo, giving his methods of management of bees in his extensive yards, and advice concerning the care of combs and comb honey.

After some further remarks by members present the President declared the "question drawer" open, and appointed Messrs. Newman, Cook and Harper a committee to answer the questions. Many of the usual questions were asked and much intelligence imported by their answers.

The exhibit of the hives and supplies was quite large; a chaff hive from Ill. was there, but owing to the many parts it contained found but little favor. Bingham's smoker was as usual the "pet." Time was given to examine the books and publications on exhibibition. Mr. Brown, of Lansing, exhibited a section machine and foundation fastener; Mr. Newbrow a clamp to raise frames from the hive.

After being called to order, Mr. Case, of Eagle, offered resolutions in honor of Messrs. Newman and Senator Root; both gentleman were elected honorary members of the Society. On motion, the Convention adjourned to Oct. 27.

Rev. J. Ashworth, *Pres.*
Geo. Perry, *Sec.*

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY–The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 15@18c. for strictly choice white comb in 1 and 2 lb. boxes; at 10@12c. for common dark-colored and broken lots. Extracted, 7½@9½c.

BEESWAX.—Choice yellow, 20@23c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 14@17c.; dark 11@12; large boxes 2c. less.—White extracted, 9@10c.; dark, 7@8c.

BEESWAX.—Prime quality, 20@25c.

CINCINNATI.

HONEY.—The market for extracted clover honey is good, at 8@10c. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY—Most of the honey now in market, both in first and second hands, has been either withdrawn or placed at a limit above current rates. This action is confirmatory of the unfavorable prospects heretofore referred to. We quote white comb, 12@14c.; dark to good, 9@11c. Extracted, choice to extra white, 5¾@6¾c.; dark and candied, 4@5½c.

BEESWAX—21@22c., as to color.

Stearns & Smith, 423 Front Street.
San Francisco, Cal., May 21, 1881.

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
Bee-Keepers' Magazine (A.J.King)	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T.G.Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

Local Convention Directory.

1881. *Time and Place of Meeting.*
Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct, 11, 12—Northern Michigan, at Maple Rapids.
12 –Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

Nana's Daughter.—T. B. Peterson & Brothers have just published a remarkable book which will create a great sensation, being no less than a continuation of, and sequel to Emile Zola's great Paris realistic novel of "Nana," being a far superior book, which can be appreciated by all. It is entitled "Nana's Daughter," and is one of the most exciting and absorbing stories ever given to the public. The heroine is elevated upon the stage of Parisian fashion, and is more natural than realistic. Look out for another eruption.

SPECIAL NOTICES.

☞Single copies of the JOURNAL are sent postage paid for 5 cents each.

◆

☞Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

☞When changing a postoffice address, mention the *old* address as well as the new one.

◆

☞We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

◆

☞Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

◆

Many Lose Their Beauty from the hair falling or fading. Parker's Hair Balsam supplies necessary nourishment, prevents falling and grayness and is an elegant dressing. 22w4

◆

☞Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

☞Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

☞The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

◆

PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

◆

☞At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

◆

☞It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Postoffice, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

An Old Lady writes us: "I am 65 years old and was feeble and nervous all the time, when I bought a bottle of Parker's Ginger Tonic. I have used a little more than one bottle and feel as at 30, and am sure that hundreds need just such medicine." See advertisement. 22w4

HENRY ALLEY,
Wenham, Essex County, Mass.
Cyprian, Holy Land, Hungarian and Italian
QUEENS AND BEES.

I have made queen breeding a specialty for the last 20 years. All my queens are reared on a new and scientific principle, combining beauty, purity, industry and docility. No in-and-in or nuclei-bred queens sent out by me. All queens warranted pure, and safe arrival guaranteed, by mail. Warranted queens $1.00 each, choice selected $1.50 each, tested $2.00 each. Send for my 20th annual circular and price list. Try these new races and their crosses.

IMPORTED
ITALIAN QUEENS.

I shall import, direct from Italy, **Choice Italian Queens** this season, and will sell them at $5 each. Tested Queens, of my own rearing, from Imported stock, $2 each; Untested, $1 each. Imported and Tested Queens will be sent by Express, and Untested ones by mail. All orders will receive prompt attention. Safe arrival guaranteed.
14m2tp **G. H. ADAMS**, North Nassau, N. Y.

Italian, Cyprian & Holy Land Queens.

Single Queen, Tested $2 00
" Untested, laying.. 1 00
By mail, safe arrival guaranteed.
3-frame nucleus..............$3 00
2-frame nucleus.............. 2 50
Furnished after June 1st.
By express, safe arrival guaranteed.
W. P. HENDERSON, Murfreesboro, Tenn.
1m6t

QUEENS, BEES, ETC.
IF YOU WISH THE
Best, Gentlest and Most Beautiful Bees,
I am prepared to furnish early Queens.
PURE ALBINO,
ITALIAN AND
HOLY LAND QUEENS,

Bred from Imported and Select Stock. Warranted to be pure, and safe arrival guaranteed. Also Hives, Novice's Extractor, and Apiarian Supplies generally. Send for Price List. Address,

S. VALENTINE,
14m3t Double Pipe Creek, Carroll Co., Md.

Friends, if you are in any way interested in
BEES OR HONEY
We will with pleasure send you a sample copy of our
Monthly Gleanings in Bee-Culture,

with a descriptive price-list of the latest improvements in **Hives, Honey Extractors, Artificial Comb, Section Honey Boxes**, all books and journals, and everything pertaining to Bee Culture. *Nothing Patented*. Simply send your address on a postal card, *written plainly*, to A. I. ROOT, Medina, O.

A NEW PLAN.—For one dollar we will send full printed directions how to prevent the end of the sheet of wax from adhering to the rolls in making comb foundation. Address,
1m6t **SMITH & SMITH**, Kenton, Ohio.

ITALIAN QUEENS.

Tested Queens....................$1 50
Warranted Queens.............. 1 00
Cyprian Queens, untested....... 1 00

As most all the Dollar Queens I sold last year were pure, I will warrant them this year. J. T. WILSON,
Mortonsville, Woodford Co., Ky.
1m6t

ITALIAN QUEENS.

1881.

1881.

Safe Arrival Guaranteed!

I am prepared to furnish queens of the purest grade, all bred from Imported Stock:

Untested Queens, in May and June............. $1 50
Untested Queens, in July and after.............. 1 00
Tested Queens, in May and June.................. 2 50
Tested Queens, in July and after................. 2 00

I guarantee all my Queens to be purely mated.
☞Send for price list—free.
L. C. McFATRIDGE, M. D.,
9m6t Carroll, Carroll Co., Ind.

HEADQUARTERS IN THE SOUTH,

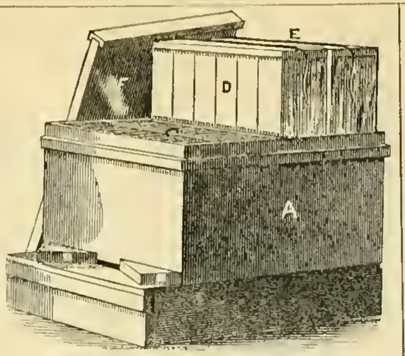
for the manufacture and sale of **BEE-KEEPERS' SUPPLIES, ITALIAN QUEENS** and **BEES**, all bred from mothers of my own importation. Dollar Queens, $1; Tested Queens, $2.50; four-frame Nucleus, $5. Safe arrival and satisfaction guaranteed. Send for my illustrated catalogue.
22mtf PAUL L. VIALLON, Bayou Goula, La.

15 One-Cent Stamps
Will pay for our exhaustive pamphlet on raising, handling and marketing extracted honey.
COLONIES
WITH
Imported Italian Queens,
Of our own Importation,
GUARANTEED PURE AND GENUINE.

Our **Comb Foundation** was awarded the diploma at the North-Eastern Bee-Keepers' Convention held in February.

Smokers, Knives, Extractors, &c.
Price List, with 3 samples of Comb Foundation, free.
CHAS. DADANT & SON,
9smtf Hamilton, Hancock Co., Ill.

C. Olm's Comb Foundation Machine.
☞Send for Sample and Circular.
18mtf **C. OLM**, Fond du Lac, Wis.



Heddon's Langstroth Hive.
Send for Circular to
JAMES HEDDON,
18m3t **Dowagiac, Mich.**
☞Those having Bees to sell, or to let on shares, please address as above. JAMES HEDDON.

SECTIONS AND HIVES.

James Forncrook has just received a patent on his Machine for Scoring Honey Box Sections, dated March 29, 1881, No. of Patent, 239,476. He has not sold any shop rights on this machine, nor does he intend to; therefore, any one using a machine to make the One-Piece Section are infringing.

We will make the "Boss" Section, any size up to 5x6, for $5.00 per 1,000. Material for Langstroth hive 50c.

JAMES FORNCROOK & CO.
Watertown, Jeff. Co., Wis., April 2, 1881. 18mtf

BEFORE PURCHASING ANY
Italian and Cyprian Bees,

Send for our 20th Annual Price List. Full Colonies, Nuclei and Queens at reduced rates, also headquarters for Apiarian Supplies in New England.
WM. W. CARY & SON, formerly
9mtf WM. W. CARY, Coleraine, Mass.

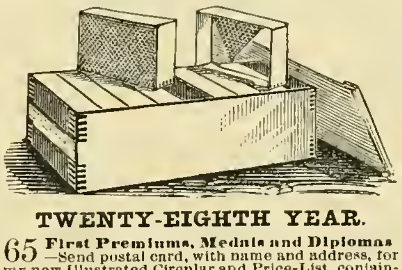
MUTH'S
HONEY EXTRACTOR
AND UNCAPPING KNIFE.

The Extractor is made of all metal, is always ready for use, easily cleaned, and will last a lifetime. In fact, it has only to be used to be appreciated. Every Bee-Keeper should send for my circular giving details about the care of bees and how to get the most Honey.

CHAS. F. MUTH, No. 976 Central Av., Cincinnati, O.
1m1y

Hives, Sections,
AND BOXES.

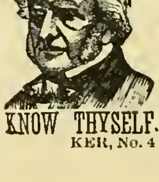
Material for Langstroth Hives, including brood frames, 40c. each; Lewis' V-shaped groove one-piece Sections, any size to 6x6, $5 per 1,000; Lewis' one-piece Honey Boxes of all sizes, $2 to $4 per 100, including glass; Dovetailed Sections, any size to 6x6, $4 per 1,000. Manufacturing experience of 20 years.
Send for Price List. **G. H. LEWIS,**
Successor to Lewis & Parks, Watertown, Wis.
N. B.—There is no patent on the Lewis One-Piece Section. 12mtf



TWENTY-EIGHTH YEAR.

65 **First Premiums, Medals and Diplomas**—Send postal card, with name and address, for my new Illustrated Circular and Price-List, containing valuable information to all bee-keepers. CHAS. H. LAKE, successor to the late Richard Colvin, 96 West Pratt Street, Baltimore, Md. 4wtf

ONE-PIECE SECTIONS—pound and prize size—$4.50 per $1,000. Sample section free.
18sm4tp BYRON WALKER, Capac, Mich.



KNOW THYSELF.

GOLD MEDAL AWARDED the Author. A new and great Medical Work, warranted the best and cheapest, indispensable to every man, entitled "The Science of Life, or Self-Preservation;" bound in finest French muslin, embossed, full gilt, 300 pp., contains beautiful steel engravings, 125 prescriptions, price only $1.25 sent by mail; illustrated sample, 6 cents; send now. Address Peabody Medical Institute or Dr. W. H. PARKER, No. 4 Bulfinch st., Boston. 22w1y

Books for Bee-Keepers.

Sent by mail, postpaid, on receipt of price, by
THOMAS G. NEWMAN.
974 West Madison Street, CHICAGO, ILL.

Cook's Manual of the Apiary.—Entirely rewritten, greatly enlarged and elegantly illustrated, and is fully up with the times on every conceivable subject that interests the apiarist. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, **$1.25**; paper, **$1.**

Quinby's New Bee-Keeping, by L. C. Root.—The author has treated the subject of bee-keeping in a manner that cannot fail to interest all. Its style is plain and forcible, making all its readers sensible that the author is master of the subject.—**$1.50.**

Novice's A B C of Bee-Culture, by A. I. Root. This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, **$1.25**; paper, **$1.00.**

King's Bee-Keepers' Text-Book, by A. J King.—This edition is revised and brought down to the present time. Cloth, **$1.00**; paper, **75c.**

Langstroth on the Hive and Honey Bee This is a standard scientific work. Price, **$2.00.**

Blessed Bees, by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, **$1.00.**

Bee-Culture; or Successful Management of the Apiary, by Thomas G. Newman.—This pamphlet embraces the following subjects: The Location of the Apiary—Honey Plants—Queen Rearing—Feeding—Swarming—Dividing—Transferring—Italianizing—Introducing Queens—Extracting—Quieting and Handling Bees—The Newest Method of Preparing Honey for Market, etc. It is published in **English** and **German.** Price for either edition, **40 cents**, postpaid, or $3.00 per dozen.

Food Adulteration; What we eat and should not eat. This book should be in every family, where it ought to create a sentiment against the adulteration of food products, and demand a law to protect consumers against the many health-destroying adulterations offered as food. 200 pages. Paper, **50c.**

The Dzierzon Theory;—presents the fundamental principles of bee-culture, and furnishes a condensed statement of the facts and arguments by which they are demonstrated. Price, **15 cents.**

Honey, as Food and Medicine, by Thomas G. Newman.—This is a pamphlet of 24 pages, discoursing upon the Ancient History of Bees and Honey; the nature, quality, sources, and preparation of Honey for the Market; Honey as an article of food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, &c.; and Honey as Medicine, followed by many useful Recipes. It is intended for consumers, and should be scattered by thousands all over the country, and thus assist in creating a demand for honey. Published in **English** and **German.** Price for either edition, **6c.**; per dozen, **50c.**

Wintering Bees.—This pamphlet contains all the Prize Essays on this important subject, that were read before the Centennial Bee-Keepers' Association. The Prize—$25 in gold—was awarded to Prof. Cook's Essay, which is given in full. Price, **10c.**

The Hive I Use—Being a description of the hive used by G. M. Doolittle. Price, **5c.**

Extracted Honey; Harvesting, Handling and Marketing.—A 24-page pamphlet, by Ch. & C. P. Dadant, Hamilton, Ill. This gives in detail the methods and management adopted in their apiary. It contains many useful hints.—Price **15c.**

Practical Hints to Bee-Keepers, by Chas. F. Muth; 32 pages It gives Mr. Muth's views on the management of bees. Price, **10c.**

Kendall's Horse Book—No book can be more useful to horse owners. It has 35 engravings, illustrating positions of sick hoses, and treats all diseases in a plain and comprehensive manner. It has a large number of good recipes, a table of doses, and much other valuable horse information. Paper, **25c.**

Chicken Cholera, by A. J. Hill.—A treatise on its cause, symptoms and cure. Price, **25c.**

Ropp's Easy Calculator.—These are handy tables for all kinds of merchandise and interest. It is really a lightning calculator, nicely bound, with slate and pocket for papers. In cloth, **$1.00**; Morocco, **$1.50.** Cheap edition, without slate, **50c.**

The Crowning Culmination! A $5 Book for $2.50!!
MOORE'S UNIVERSAL ASSISTANT,
And Complete Mechanic,

Enlarged Edition, contains over 1,000,000 Industrial Facts, Calculations, Processes, Trade Secrets, Legal Items, Business Forms, etc., of vast utility to every Mechanic, Farmer, and Business Man. Gives 200,000 items for Gas, Steam, Civil and Mining Engineers, Machinists, Millers, Blacksmiths, Founders, Miners, Metallurgists, Assayers, Plumbers, Gas and Steam Fitters, Bronzers, Gilders, Metal and Wood Workers of every kind, Builders, Manuf'r's and Mechanics. 500 ENGRAVINGS of Mill, Steam, and Mining Machinery, Tools, Sheet Metal Work, Mechanical Movements, Plans of Mills, Roofs, Bridges, etc. Arrangement and Speed of Wheels, Pulleys, Drums, Belts, Saws, Boring, Turning, Planing, & Drilling Tools, Flour, Oatmeal, Saw, Shingle, Paper, Cotton, Woollen & Fulling Mill Machinery, Sugar, Oil, Marble, Threshing & Rolling Mill, do., Cotton Gins, Presses, &c. Strength of Teeth, Shafting, Belting, Friction, Lathe Gearing, Screw Cutting, Finishing Engine Building, Repairing and Operating, Setting of Valves, Eccentrics, Link & Valve Motion, Steam Packing, Pipe & Boiler Covering, Scale Preventives, Steam Heating, Ventilation, Gas & Water Works, Hydraulics, Mill Dams, Horse Power of Streams, etc. On Blast Furnaces, Iron & Steel Manufacture, Prospecting and Exploring for Minerals, Quartz and Placer Mining, Assaying, Amalgamating, etc. 461 TABLES with 500,000 Calculations in all possible forms for Mechanics, Merchants and Farmers, 800 items for Printers, Publishers and Writers for the Press. 1,000 items for Grocers, Confectioners, Physicians, Druggists, etc. 300 Health Items, 500 do. for Painters, Varnishers, Gilders, etc. 500 do. for Watchmakers & Jewelers. 400 do. for Hunters, Trappers, Tanners, Leather & Rubber Work, Navigation, Telegraphy, Photography, Book-keeping, etc., in detail. Strength of Materials, Effects of Heat, Fuel Values, Specific Gravities, Freights by rail and water—a Car Load, Stowage in Ships, Power of Steam, Water, Wind, Shrinkage of Castings, etc. 10,000 items for Housekeepers, Farmers, Gardeners, Stock Owners, Bee-keepers, Lumbermen, etc. Fertilizers, full details, Rural Economy, Food Values, Care of Stock, Remedies for do., to increase Crops, Pest Poisons, Training Horses, Steam Power on Farms. LIGHTNING CALCULATOR for Cubic Measures, Ready Reckoner, Produce, Rent, Board, Wages, Interest, Coal & Tonnage Tables. Land, Grain, Hay, & Cattle Measurement. Seed, Ploughing, Planting & Breeding Tables, Contents of Granaries, Cribs, Tanks, Cisterns, Boilers, Logs, Boards, Scantling, etc., *at sight*. Business Forms, all kinds, Special Laws of 49 States, Territories and Provinces (in the U. S. and Canada), relating to the Coll. of Debts, Exemptions from Forced Sale, Mechanics' Lien, the Jurisdiction of Courts, Sale of Real Estate, Rights of Married Women, Interest and Usury Laws, Limitation of Actions, etc.

"Forms complete treatises on the different subjects."—*Sci. Am.*

The work contains 1,016 pages, is a veritable Treasury of Useful Knowledge, and worth its weight in gold to any Mechanic, Business Man, or Farmer. Free by mail, in fine cloth, for $2.50; in leather, for $3.50.

THE AMERICAN BEE JOURNAL

RATES FOR ADVERTISING.

A line will contain about **eight words**; fourteen lines will occupy one inch of space.

One to three weeks, each insertion,	**20**	cts. per line.
Four " or more" "	**18**	" "
Eight, " " " "	**15**	" "
Thirteen " " " "	**12**	" "
Twenty-six " " " "	**10**	" "
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Advertisements withdrawn before the expiration of the contract, will be charged the full rate for the time the advertisement is inserted.

Transient Advertisements payable in advance.—Yearly Contracts payable quarterly, in advance.

THE AMERICAN BEE JOURNAL is the oldest Bee Paper in America, and has a large circulation in every State, Territory and Province, among farmers, mechanics, professional and business men, and is, therefore the best advertising medium for reliable dealers. Cases of *real* imposition will be exposed.

THOMAS G. NEWMAN,
974 West Madison Street., **Chicago, Ill.**

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BLACK QUEEN BEES FOR SALE.

I have about 50 Black Queen Bees which I will sell at **50c.** each, by express or mail. Address,
22w1t WM. LOSSING, Hokah, Minn.

JOSEPH D. ENAS,
(Sunny Side Apiary,)
Pure Italian Queens, Bees, Colonies
Nuclei, Comb Foundation, etc.
Address. Napa, Napa County, Cal.
9m6t

SEND FOR MY CIRCULAR and PRICE LIST of Italian Colonies, Queens, Nuclei and Apiarian Supplies.
H. H. BROWN,
. 18mtf Light Street, Col. Co., Pa.

Italian Queens Only 80 Cents.

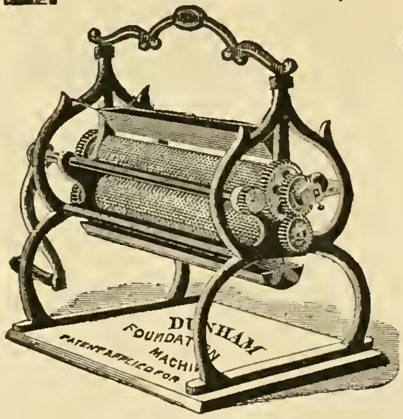
Warranted $1.00. Tested $1.50. 10 frame Colonies $5.75 to $8.00. ☞ Send for Circular, and save money.
9m8t E. A. THOMAS, Coleraine, Mass.

Hill's Archimedean Lawn Mower Co.
OF HARTFORD, CONN.,
Manufacturers of the
NEW ARCHIMEDEAN
and CHARTER OAK
LAWN MOWERS.

These Mowers have become celebrated throughout the world, where lawns are cultivated, as being the most perfect and desirable Lawn Mowers ever made. They stand at the head of the list of Lawn Mowers in the United States and Europe. They contain all the improvements that experience in their manufacture can suggest; are beautifully finished, thoroughly made, and do splendid work on every variety of lawn.

Hand Mower Sizes, from 8 to 18 inches; Pony and Horse Sizes, 24, 28 and 32 inches. Send for Circulars.
SOLD BY OUR AGENTS EVERYWHERE.
22w2t

FRANCES DUNHAM,
Inventor and Sole Manufacturer of the
DUNHAM
FOUNDATION
MACHINE,



AND DUNHAM
COMB FOUNDATION,
☞ New Circular and Samples free.
FRANCES DUNHAM,
1sm6m DEPERE, BROWN CO., WIS.

Read What They Say!

The only swarm of bees alive in this township, contains a queen I bought of you; they are lively. J. R. M. ALLEN.
Greencastle, Ind., April 16, 1881.

Of the 31 dollar queens purchased of you last season, only one proved imporely fertilized. They have wintered finely, while three-fourths of the bees in this section are dead.
L. DENSMORE.
Livonia Station, N. Y., April 11, 1881.

Could give scores of letters in praise of
Our Strains of Italians,
like the above. If you want bees that are hardy enough to
SURVIVE OUR COLDEST WINTERS,
and that will pile up the box honey, give us a trial order. Can furnish
DOLLAR QUEENS,
WARRANTED QUEENS,
TESTED QUEENS and
IMPORTED QUEENS,
Bees by the Pound,
NUCLEI AND FULL COLONIES.

Before ordering goods, send us a list of articles you wish to purchase, and get our price for the same.
OUR 40-PAGE CATALOGUE
of Apiarian Supplies, free to all. Address,
H. A. BURCH & CO.,
18wtf South Haven, Mich.

WANTED—You to send for our Circular and Price list of **American-Italians.** Address,
JOS. M. BROOKS & BRO.,
13w6m Columbus, Ind.

Given's Foundation Press.

The latest improvement in Foundation. Our thin and common Foundation is not surpassed. The only invention to make Foundation in the wired frame. All Presses warranted to give satisfaction. Send for Catalogue and Samples.
1wly D. S. GIVEN, Hoopeston, Ill.

Section Boxes.

I have now every facility for making good, cheap sections, both nailed and dovetailed (having bought an interest in the planing-mill here), and will make any size from 4¼x4¼ to 6x6, at $5 per 1,000. Good material and good work. Dunham and Van Deusen Foundation, Italian and Cyprian Queens, etc.
J. V. CALDWELL,
12w6m Cambridge, Henry Co., Ill.

BE SURE TO
SEND FOR A SAMPLE
of our superior "One-Piece" Section Boxes before purchasing elsewhere—you will be convinced of their excellence. Our 8-page Circular and Price List of Italian and Holy Land Bees and Queens, and all supplies for the Apiary, free to all. "One-Piece" Sections and Queens specialties.
RIEGEL & DRUM,
22w3t Adelphi, Ross Co., Ohio.

MAPLE SUGAR WANTED.—I wish to buy for cash a quantity of **PURE** Maple Sugar Give price, quality, quantity and how put up. Also, a few barrels of choice white clover honey—give price.
18smtf M. M. BALDRIDGE, St. Charles, Ill.

300 COLONIES
of Pure Italian Bees, in good condition, in 10 frame Langstroth hives. Orders for
ITALIAN QUEENS,
Nuclei and Full Colonies,
are now being booked and will be filled in rotation as received, at the following prices:

Tested Queens, each	$2 50
" " per half-dozen	13 50
1 frame Nucleus, with Tested Queen	5 00
2 " " " " "	5 50
3 " " " " "	6 00
4 " " " " "	6 50
Full Colonies, each	12 00
" " in lots of 5, each	10 00
" " " 10, each	9 00

I will use all possible care in preparing the above for shipment, but cannot guarantee safe arrival, except on queens any distance less than 1,000 miles.

ALSO
100 COLONIES
OF
BLACK AND HYBRID BEES,
in Langstroth hives, in quantities of not less than 5 colonies at **$8.00** each, which I will ship direct from the South, at any time.

Also, 200 Colonies of Native Bees,
in Box Hives, delivered on Mississippi River Steamboat any time after April 15th, in lots of 10 or more, at **$6.00** each.

☞ The Colonies of Hybrids and Natives are very strong in bees reared this spring, and combs well filled with brood. They can be transferred or divided by May 1st, and increased in time for white clover and basswood surplus.
ALFRED H. NEWMAN,
972 West Madison St., CHICAGO, ILL.

THE ORIGINAL QUINBY SMOKER,
with upright bellows and tube, has been upon the market five years longer than any smoker made.
"The largest bee-keeper uses them."
"The Hetherington Bros are the most extensive bee-keepers in the United States."

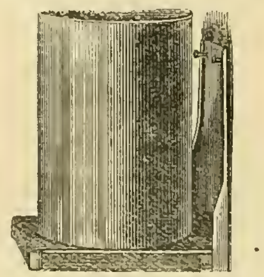
Cherry Valley, N. Y., March 22, 1881.
After testing your smokers with others of the best make, I do not hesitate to order two dozen for use in our apiaries. When we use a Smoker we make a business of it, running it all day and burning hard maple wood, which tests the construction most thoroughly. Those we have been using admit coals into the bellows, which burn the leather. The tube in your Quinby Smoker running further into the fire-box, must prevent this in a great measure.
J. E. HETHERINGTON.

We warrant our new Double-Blast to be the BEST Smoker made, or will refund the money.

Prices by mail Medium, 2 inches	$1 50
Large, 2½ inches	1 75

QUINBY'S NEW BEE-KEEPING,
By mail........ $1 50
Send for it, and learn how we were enabled to obtain over 15,000 lbs. of honey from 176 colonies last season.

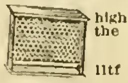
Alsike Clover Seed a Specialty.



The Van Deusen Feeder, with our attachment, as shown in the cut, is perfection itself.
Send for illustrated circular describing all goods.
L. C. ROOT & BRO.,
17 Mohawk, N. Y.

Be SURE
To send a postal card for our Illustrated Catalogue of Apiarian Supplies before purchasing elsewhere. It contains illustrations and descriptions of everything new and valuable needed in an apiary, at the lowest prices. Italian, Cyprian and Holy Land Queens and Bees.
J. C. & H. P. SAYLES,
2eow15t Hartford, Wis.

FLAT-BOTTOM COMB FOUNDATION,



high side-walls, 4 to 16 square feet to the pound. Circular and samples free.
J. VAN DEUSEN & SONS,
Sole Manufacturers,
11tf Sprout Brook, Mont. Co., N. Y.

ITALIAN QUEENS, Full Colonies, Nuclei and Bee Hives specialties. Our **new** Illustrated Catalogue of Bees, Supplies, Fine Poultry, Small Fruits, &c., **Free.** ☞ Send for it and save money.
J. T. SCOTT & BRO., Crawfish Springs, Ga. 2w32tx

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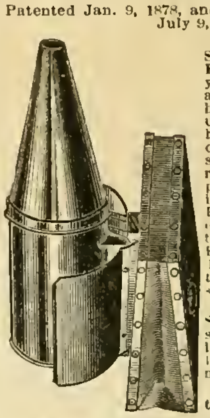

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OLDEST BEE PAPER IN AMERICA

THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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CONVENTION NOTES

For the American Bee Journal.

Texas Convention.

The Texas Bee-Keepers' Association convened at the apiary of Judge W. H. Andrews, at McKinney, Collin County, at 9 a. m. The meeting was called to order by the President, Judge Andrews, who introduced Dr. N. P. Allen, President of North American Bee-Keepers' Society, and stated that he would preside over our meeting. A pleasant shade was sought under the boughs of a large apple tree, which Judge Andrews told us was planted by himself 13 years ago; it was over 12 inches in diameter. We were situated in close proximity to the busy bees which seemed to enjoy the balmy breezes as much as their masters, who had assembled in their behalf.

After an expression of general good feeling toward Dr. N. P. Allen for having honored our Society with his presence, the general order of business was taken up, and called by the Secretary. Committees were appointed as follows: Committee on resolutions, committee on subjects for discussion, and committee on apiarian supplies: after which Dr. N. P. Allen delivered the following address:

I am happy to meet so many who are interested in the cultivation of the honey bee—glad to be able to throw in my might to aid you in developing the honey resources of your great State. This is a "land of flowers," and millions of them are wasting their fragrant sweets upon the breezes, for the want of bees to gather it. Millions of pounds of sweet nectar are going to waste every year in your State; enough to supply all the sweets necessary for the consumption of the people. Pure honey is the gift of the great Creator. He makes the forests and fields, the desert and waste places to bloom in the myriads of flowers, rich with honey; He carpets the broad prairies with flowers, and fills their delicate honey-cups with nectar, suitable for food for the Gods; He gives us the honey bee, endowed with an instinct for gathering and storing it, in waxen cells, for the use of men.

Man was endowed with reason, intellect, understanding, and was given control over the animal, vegetable and mineral kingdoms; yea, he was commanded to go forth and "subdue the earth."

The honey bee can be controlled by man in its labors of honey gathering, comb building and brood-rearing, so as to produce large amounts of honey, or to "increase and multiply" to an unlimited extent. Franklin subdued the lightning, and Morse made it subserve the interests of man in transmitting news from place to place with lightning speed! By the aid of steam, man traverses both land and water.

Mr. Langstroth invented the movable-frame hive, which gives us entire control of the labors of our bees, so as to make their labors a source of pleasure and profit. But in order to utilize this, we must study its nature and instinct, and become familiar with its habits. The standard works and text books on bee-keeping, will give us reliable information, and the bee periodicals will keep us posted concerning all the late inventions and discoveries in manipulating and controlling these little busy workers, as well as teach us how to secure and market the honey crops. By availing ourselves of these helps, we can learn in a short time what it took years to learn by observation and experience. We must avail ourselves of the movable frame hive, which gives us entire control of the colony; we should also obtain the best race of bees for honey gathering.

We have the black or German bee, the Italian, the Cyprian and the Albinos from which to select, and the Jungles of Asia are being searched by enterprising Americans, with the hope of obtaining other varieties superior to those we now have. Not only should we avail ourselves of the movable frame hive and the best race of bees for gathering large crops of honey, but we should employ the best implements for manipulating our bees. As the agriculturist avails himself of the best machinery for the cultivation and harvesting of his crops, so we must avail ourselves of the best implements to enable us to control our bees, and to make them profitable to us; securing our honey in the best shape for market.

The honey extractor enables us to secure large amounts of pure honey, and to return the comb to be filled again and again by the bees.

The bellows-smoker enables us to subdue and control our bees while manipulating them. By the use of 1 and 2 pound sections, we can get our honey stored in convenient and fancy shape for the market.

Comb-foundation, made of pure beeswax, is extensively used in aiding rapid comb-building in the brood-nest, and as starters in section boxes.

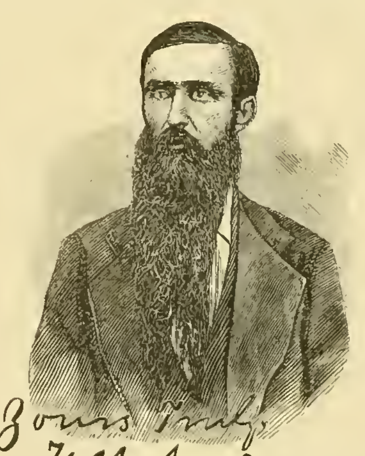
Last, but not least, we should look well to the natural bee pasturage and where that is lacking, supply, as far as possible, with artificial pasturage.

Here we are favored with a honey flow from 8 to 10 months in the year. We, in the Northern and Middle States, have to put our bees in cellars, or pack them in leaves or chaff upon the summer stands, while your bees need but little, if any protectors. Indeed, this is a land of flowers, a "land that flows with milk and honey," capable of sustaining an immense population.

Allow me to congratulate you upon the progress you are making in the science of bee-keeping, and in developing the honey resources of this great State. We bid you "God speed," and ask your co-operative in building up the National Association.

Judge W. H. Andrews gave his annual address, which was able and full of enthusiasm. He said he knew of no other profession in which the minds of men ran more in the same channel, in which there was more fraternal friendship, or a more earnest desire to disseminate knowledge, than among scientific bee-keepers. He was glad to meet so many brethren on this occasion, and felt greatly encouraged in the success of the organization. It not only showed the desire for the perpetuation of our society, but the untiring zeal which its members possessed.

In 1870, at Sulphur Springs, in Hopkins Co., the Texas Bee-keepers' Association was organized, and he had the honor of presiding at the organization; but as bee-keeping was carried on by few persons, and they so widely separated, and the means of public conveyance so limited, the Society lasted only a short time. He thought it was kept up two years only; but it was the means, in that short period, of encouraging the industry to that extent, that Hopkins Co. produced more honey than any other County in the State, though only a small portion of the County was adapted to bee-culture.



Yours Truly,
W. H. Andrews.

In July, 1878, the society was re-organized at Greenville, Hunt Co., when he again had the honor of being elected its President. To-day, Collin and Hunt counties produced more honey than any other 2 Counties in the State; and Collin Co. was capable of producing a greater income from its honey resources than from the raising of wheat.

After a general expression of good feeling by all present, the meeting adjourned till p. m.

FIRST DAY.—AFTERNOON SESSION.

The committee on subjects for discussion reported. The first subject was: "What is the best method of preventing excessive increase?"

Judge Andrews was selected to open the discussion. He uses the American side-opening hive, and an empty hive being at hand, he illustrated his method of preventing excessive increase by maniputating the hive. He calls the side which opens, the front; the opposite, the back. When a swarm issues, he takes out the three front combs, and reverses the position of the others in the hive, in order to disorganize the brood-nest; at the same time removing all the queen cells, he puts an empty frame next to the back, then a full frame of comb and brood; then another empty frame; then a full frame; then another empty frame; he then fills up the hive with the remaining full combs after the removal of the first three, which, if full of honey, can be removed to his store-room. Combs containing brood can be used to strengthen nuclei, by placing the empty frames near the back; he will have them filled with good worker comb, and by the time the brood-nest is re-established in the back, all desire to swarm will have passed, and he has a strong colony, ready to commence in the supers.

S. S. Lyday uses the simplicity hive; his method was similar to that just described, except that after removing the queen cells, and re-arranging the brood-chamber, his bees were hived in the upper story, which was placed over the parent colony.

The next subject was, "Which is the most profitable, extracted or comb honey?" The discusion was opened by Mr. M. H. Davis, who said that he could produce extracted honey at $\frac{1}{2}$ the cost of comb honey, and that his extracted honey he could sell at 16$\frac{2}{3}$ cts. per lb., while his comb honey was worth only from 20 to 25 cts. per lb.

Mr. S. S. Lyday said that it had been his experience, that extracted honey was the most profitable.

M. S. Klum said that in his market, extracted was the most profitable.

Judge Andrews said that comb honey was most profitable, all things considered. The time employed in extracting, and the expense of putting it up in an attractive shape for the market, were items that should not be overlooked, while comb honey in single-comb sections and boxes, was ready for the market as soon as taken from the hive, without any further expense.

"Will it pay to co-operate in purchasing supplies?" was discussed, and referred to the committee on resolutions.

"The best marketable shape for honey," Dr. Howard said, that it depended upon the market; but that small packages in an attractive shape found ready sale.

Judge Andrews said that the 1 ℔ sections and extracted honey in glass jars, pleased the fancy best; that we must put up our honey in an attractive shape; we must "tickle the fancy."

M. H. Davis put up extracted honey in Mason jars, which held 6 lbs., neatly labled, with a notice printed on the lable—"Return this jar and receive 15 cts."

Dr. N. P. Allen gave some very interesting, as well as practical and instructive hints on marketing honey. He recommended small packages for extracted honey, in glass or tin cans, neatly labeled. They must be showy, and as Judge Andrews remarked, we must "tickle the fancy." He gave some statictics on sales of extracted honey in 2 lb. tin cans attractively labled, compared with those of the same kind of honey in the same sized cans not labeled, which illustrated the fact that fancy labels sold the honey; he was in favor of the 1 ℔ sections for comb honey.

Judge Andrews brought out some extracted honey in a 3 lb. Mason jar, 3 years old, which was only partially candied; it looked neat, and attractive.

Adjourned till 9 a. m. to-morrow.

SECOND DAY—MORNING SESSION.

The meeting was called to order by Dr. N. P. Allen, and the committee on resolutions made the following report:

Resolved, That the Texas Bee-Keepers' Association recognize, in the intelligent management of the honey bee, an economical source of wealth to the country, and an easy means of obtaining one of the richest luxuries of life, within the reach of almost every family. Adopted.

Resolved. That we take steps at once to secure to the members of our Association the benefits of co-operative effort, in securing bee-keepers' supplies, by electing a State agent to make terms with manufacturers and transportation companies, both as to purchases and freights. Adopted.

Resolved, That we recommend to the bee-keepers of the State to organize local Bee-Keepers' Associations, and to order the apiarian supplies through the agent of the State Association. Adopted.

Resolved, That we recommend to beginners to adopt the simplicity hive.

After some discussion in regard to narrow top-bars and wide top-bars, Judge Andrews said that he did not think that open-top frames possessed any advantage over the closed-top, but from the fact that the simplicity hive was made and kept in stock by dealers, and all the fixtures were made to fit that style of hive, he was in favor of the resolution. Adopted.

Resolved, That bee-keeping is a more lucrative and less laborious industry than stock-raising or farming.

After discussion, by several parties whose experience favored the resolution, Judge Andrews was called upon to give his experience. He said, that after estimating his bees at their cash value, his profits last year were 45 per cent., cost of labor 5 per cent.; while his income on his Jersey cattle was 23 per cent., and the cost of labor 18 to 20 per cent., showing a great balance in favor of his bees, both as to labor and profits. The resolution was adopted.

Resolved, That we tender the thanks of this Association to Messrs. Scovell & Anderson, of Columbus, Kan., for the exhibition and donation of hives and fixtures from their factory. Adopted.

Resolved, That we tender the thanks of this body to Dr. N. P. Allen, of Smith's Grove, Ky., President of the North American Bee-Keepers' Society, for the interest he has manifested in honoring our Association with his presence, in presiding over our deliberations, for his intelligent advice, and for the enthusiasm his words of encouragement have awakened among us. Adopted.

Resolved, That the Texas Bee-Keepers' Association tender thanks to Judge W. H. Andrews for his pioneer efforts in the bee-keeping enterprise, and for the pains he has taken to exhibit the practical advantages of bee-keeping, and to make this Association a success. Adopted.

Resolved, That invitation is extended to lady bee-keepers to attend the sessions of this Association and become members of the same. Adopted.

G. M. Cooper, J. P. Nenny, J. R. Wilmeth, Committee.

The Secretary announced that the "doors" of the Association were open for the reception of members; that the only requirements for the gentlemen were to sign the constitution and pay the sum of 25 cents; ladies free. Several persons availed themselves of the opportunity to become members.

The election of officers was next in order. The following was the result of the election: W. H. Andrews, President, McKinney, Collin Co.; M. H. Davis, Vice-President, Howe, Grayson Co.; Wm. R. Howard, Sec., Kingston, Hunt Co.; S. S. Lyday, Treasurer, Honey Grove, Fannin Co.

Adjourned till 2 o'clock p. m.

SECOND DAY—AFTERNOON SESSION.

The meeting was called to order by Dr. N. P. Allen.

Mr. F. F. Collins, of Austin, had just arrived, and many were the words of encouragement he spoke. He regretted not being with us sooner, but sickness in his family prevented; however, he was proud to meet with so many bee-keepers; it was an indication of success to the Association.

The President announced that while waiting on the committee on supplies to report, that a few subjects for discussion would be in order.

"Dysentery; its cause and cure," was suggested. Several had never seen a case of it.

S. S. Lyday asked, what is dysentery or bee-cholera?

Dr. Howard believed it to be a disease of the digestive organs, causing restlessness, thin, watery discharges of the feces, to be voided ever and anon in the hive or out of it, as the case might be. There was, doubtless, high febrile excitement which the bee suffered, constantly growing weaker and more sluggish, and, finally, death ensues. It does not affect every colony in the same yard at the same time, nor every member of an infected colony. There is a diversity of opinion as to the cause of the disease. Some say *bacteria*, some starvation, some one thing and some say other causes. He was of the opinion that it could be caused at any season of the year, and from what experience he had had, he believed that excessive gorging with honey, and over confinement in a damp, cool atmosphere, such as we have during our long spells of wet weather in the winter and spring, were conducive to the disease. He had lost several colonies in the last 3 years.

Judge Andrews asked, why did they not all die, all being subject to the same conditions.

Dr. Howard said that extreme heat or extreme cold would excite the bees and they would consume more honey than was necessary for their health in a moderate temperature. Colonies disturbed during confinement are more apt to become diseased, if they have plenty of stores accessible. As an even temperature is conducive to the health of bees in confinement, so will extremes be conducive to disease. The cure was simple but not always available—a good cleansing flight, in a warm, dry atmosphere.. A clean hive would be advisable, in order to relieve the bees of the task of cleaning out the dead, and removing the unwholesome stench.

M. S. Klum lost a few colonies that were weak,a few years ago, by that disease.

Judge Andrews offered a suggestion to beginners. He would recommend them never to go among the bees without being provided with a good bellows smoker.

M. H. Davis asked, if a bee-veil or a bee-hat did not have a tendency to make bees cross.

Some thought that it did. Judge Andrews said that a veil was only necessary when bees were swarming, as then he could not intimidate them with a smoker.

"Which is preferable, natural or artificial swarming?" was next discussed.

Dr. Howard said that it depended entirely upon what the bee-keeper wished to accomplish. If he wished numbers, regardless of honey, artificial swarming was to be preferred; but if he wished to prevent excessive increase and run for honey alone, the manner described by Judge Andrews, yesterday, was preferable. All agreed on these points.

"The chaff hive" was next discussed.

Some one asked: Would it pay in Texas?

Reply: They had not been tried for summer and were considered unnecessary for winter.

Judge Andrews said that he would not have one in his yard unless he had some one else to work with it. It was objectionable, first—because it was expensive; 2d, it was too heavy to handle; and 3d, it was wholly unnecessary. He wintered 2 nuclei on one frame of honey each, on the summer stand, without any protection, the past winter.

The committee on apiarian supplies made the following report:

We find on exhibition the simplicity bee hive, with and without chaff packing; arrangements with surplus honey; arrangements in the shape of all-in-one-piece simplicity sections; cases and tin separators; simplicity bee-feeder; comb foundation made on a Dunham machine, also one piece of comb drawn out from foundation of the same make, from Scovell & Anderson, Columbus, Kan., all made in good style, which we recommend as first-class goods.

We also find the Quinby smoker, with cold-blast attachment, and Quinby bee-veil, which we recommend as indispensable to bee-keepers, and which on trial give entire satisfaction.

We also find honey knives, extractors, queen cages, etc., from various parties, which we consider as valuable utility to bee-keepers.

We also find Cook's "Manual of the Apiary," "Quinby's New Bee-keeping," the Weekly BEE JOURNAL, *Gleanings in Bee-Culture*, *Bee-Keepers' Magazine*, *Bee-Keepers' Instructor*, and *Kansas Bee-Keeper*, all of which are up with the times and ably edited by practical bee-keepers, and are respectfully recommended to the bee-keeping fraternity.

Respectfully submitted, Wm. R. Graham, M. H. Davis, C. E. Chappell, Committee.

The report was received and the committee discharged.

F. F. Collins introduced the subject of electing a State agent, through which to purchase apiarian supplies, and a delegate to send to the National Convention, and nominated Dr. Wm. R. Howard, of Kingston, Hunt Co., for State agent, which was carried.

Judge Andrews was nominated for delegate to the National Convention. Carried.

F. F. Collins was then elected to represent the Association at the National Convention, in case, from any cause, Judge Andrews could not go.

A vote of thanks was tendered Judge Andrews and family for their kind hospitality in entertaining members from abroad.

The Secretary was instructed to send a copy of the proceedings to the AMERICAN BEE JOURNAL for publication, and also respectfully invite other bee-papers to copy; also to send a copy to the leading Texas papers, requesting all county and local papers to copy.

The Convention then adjourned to meet in McKinney, Collin Co., on the last Tuesday in April, 1882.

WM. R. HOWDRD, *Sec.*

Texas papers, please copy.

CORRESPONDENCE.

For the American Bee Journal.

Have Our Bees Degenerated?

G. M. DOOLITTLE.

On pages 145 and 147 of the Weekly BEE JOURNAL are articles by E. A. Thomas and S. S. Butler, both saying that all the losses of bees in winter prove that the losers have a weak race of bees, or those which have degenerated from their once hardy and prosperous condition. Will facts bear these theories out? Let us see.

Prior to 1870 there were hundreds of colonies of bees within a circuit of 20 miles from me, kept by farmers and others, in box hives, who brimstoned their bees, as S. S. Butler says they did in Eastern Pennsylvania, killing the poorest and keeping the best, scarcely ever losing any, and yet, when the disastrous winters of from 1871 to 1875 came, nearly all were swept away, and to-day, so far as I know, not one colony remains; those only have living bees who make a specialty of bee-keeping, to more or less an extent.

That the drones from 1 or 2 apiaries where bees had been divided could have degenerated these bees in so short a time, seems hardly possible. Again, if such were possible, Mr. Betsinger's case does away with that, for up to 1876 he scarcely lost a bee, and he had been dividing and rearing queens for years, and as long as he kept his former sheltered position, all went well; but when he moved to his present bleak place, his loss exceeded that of any one around him. Well do I remember going there after my loss of 1872-3 and seeing his strong colonies, and then coming home as blue as I could well be, to look at my little handful of bees in each hive in the latter part of May.

How will Mr. S. S. Butler's degeneration theory account for the great loss of such men as D. D. Palmer, O. J. Hethrington, and hosts of others who scarcely ever lost bees before? What is to be said of that 23 colonies which A. P. Cowan sold, that all died while his all lived, if degeneration is the cause of our losses?

I have also had colonies that went down so low that they had only a little brood in one frame, on the first of May, after a winter of heavy loss; but I built them up to good colonies by fall, had them do splendidly the next season, and come through the next winter stronger than any others—when I sustained a loss of ½, with the same queen presiding all the time and producing bees that nearly succombed one severe winter, and 2 years later pass through an equally severe winter and come out the best. Not only once has this come under my notice, but several times. How will Messrs. Butler and Thomas account for this, by their theory?

Mr. Thomas says, after reading the reports of those losing ½ to ¾ of their bees, "When I read such reports I always think that the rest of them might as well be dead, for all the good they will do their owner the coming season." Mr. Thomas is a little rough to talk so discourageingly to us who are down.

I wish to give a few facts which will encourage those who have lost bees, and which will also show Mr. T. that his thoughts are a little premature.

When the spring of 1875 opened, I found I had but 46 colonies left out of over 100 the fall previous, and from those 46 colonies I sold over 4,800 lbs. of box honey. In the spring of 1877 my loss was quite heavy, amounting to about ⅓, and that season our average yield per colony was 166 lbs., which was by far the largest yield I ever had. As a rule, we find a good yield of honey follows a heavy loss of bees.

Mr. Thomas says: "Why is it that some have good success in wintering in cellar and out, in all ways and all conditions, while others lose their bees, no matter how careful they are, or in what manner they winter them? Take the case of Mr. D. D. Palmer, as one of the many which may be cited; was it because his bees were weak and puny that they were all swept away during the past winter, while they have withstood all the cold blasts before? If I am rightly informed, Captain Hethrington and Mr. L. C. Root bought bees for several years to replace their bees, (buying them of parties in Vermont, and elsewhere, who wintered successfully) only to lose them the next winter. Will the condemning of all these as weak and puny, solve our wintering troubles? I leave the reader to answer.

Now, while I would gladly point the way out of this darkness of disastrous wintering, and tell you what was the only true cause of our failures. I shall have to confess candidly, that I do not know how to winter bees, and say, as I did in *Gleanings*, "I cannot see through it all." All the different theories advanced only seem to leave us more in the dark. One thing seems to impress itself, more and more, upon the intelligent mind, and that is, that a long cold winter with no chance for the bees to fly from 4 to 6 months, tends toward disaster, while a warm open winter tends toward success. Also, so far, cellar wintering at the North has proven most successful.

Mr. N. N. Betsinger was here a few

weeks ago and wished me to ask Mr. Heddon, through the Bee Journal, to tell us first what bacteria in the honey is, and how we could ascertain its presence in the honey, so that we could detect it, and not try to winter our bees on honey infected with it. But I see by the Bee Journal for May 4, that he (H.) never saw this supposed bacteria, nor never searched for it, hence knows nothing about it. It is said a drowning man will catch at a straw, so we, who have lost bees so heavily, are ready to grasp at anything that has a showing of success, but that showing must be plain enough so that we can at least catch a glimpse of it.

Borodino, N. Y., May 23, 1881.

For the American Bee Journal.

"The Straw Hive of the Future."

H. L. CHAPMAN.

Although an amateur in the bee-business, I have long been of the opinion that a straw hive or its equal was the proper hive for bees in winter or summer, in any climate; but do not think I should like the arrangement of plaster-coating the inside of the hive, as it is of so cold a nature that it would be liable to condense the moisture in the hive in winter, which I consider very objectionable.

In this vicinity there has been a rather sad experience with bees during the last winter; they were shut up so long (110 days), without a day that they could fly; then 2 days warm enough so that they flew a little; thus 14 days more of confinement before winter broke up. There were 4 parties here having in all 119 strong colonies of bees put up for winter in different kinds of hives, as follows, as nearly as I can recollect: 9 cottage hives, 20 Langstroth, 28 Thorp hive, which is very much like the American in form; 2 in Root's chaff hive; 30 in box hives, and 30 in the new Haines hive, which is a long hive with 10 frames across it, partition boards and chaff packing in the ends, behind the partitions; the frames are 12x12 inches. The chaff hive which I make and use, I call the Root hive, although it differs in a few points. It has double walls all around, and a double bottom; the space should be filled with chaff, but as I had no chaff I filled one with fine dry pine sawdust, and from the showing last winter, I believe it is a better absorbent of moisture than chaff. The brood chamber is exactly like the Langstroth; the upper story is square inside, and is deep enough to take in the Langstroth frame above the brood chamber; this space I filled with a coffee sack of pine sawdust, which is all the preparation I made for winter, leaving them on the summer stands. The others were put up in different ways: some were put in cellars, some housed, some packed with straw, etc., and left on the summer stands. However, the 2 colonies in the chaff hives were the only ones that lived, the other 117 all having died: the 10 frames of each of those 2 colonies to-day are well filled with brood and honey, and are very strong.

This I take as proof, that to winter bees there must be some arrangement whereby all moisture arising from the bees can be absorbed, not condensed, or carried off by upward ventilation; for in the latter case, the heat from the bees is also carried away. I believe that the brood chamber should also be protected from the direct rays of sun, both in summer and in winter, as it is a well known fact that if too warm in summer it retards the working of the bees, and in winter the direct sun will cause the bees to spread in warm days, and even to fly when the atmosphere is too cold; the effect of the sun is hardly noticeable in the double wall hives, and the bees will not fly until the atmosphere is sufficiently warm to bring them out. For the above reasons I believe that the only practical hive for summer or winter, is one that will protect the brood chamber from the direct rays of the sun, and will also absorb all moisture arising from the bees, be that absorbent chaff, sawdust, straw or any other substance that will do it effectually. I do not think I am prejudiced in favor of the chaff hive, for I would only be too glad if there could be some other and cheaper hive produced, that would be so generally successful in wintering, even though it had none of the other good points. There is no question but that the Langstroth hive is the *handiest* hive ever invented. If any one has been unsuccessful in wintering bees in any hive during the past winter, I should be glad to hear from him in regard to the kind of hives, how put up, etc.

Marcellus, Mich., May 30, 1881.

For the American Bee Journal.

Comb Foundation Making.

JAMES HEDDON.

Mr. Editor: I send you some samples which are average pieces, made in full sheets, on the Vandervoort mill. I have here on trial 2 of these mills, one for thick and one for thin foundation. I prefer to make the thin on the mill made for the thick, because I can get a base nearly or quite as thin, and a much better line in size and shape, besides the line will be soft and easily worked by the bees, because the cuts are so deep between the dies that the wall in the hive is not hard pressed. Could I have had such comb foundation 12 years ago I might live on the interest of my accumulated wealth to-day, merely from the honey-crops I could have raised with the aid of such an adjunct.

The statement of Prof. Cook, in his "Manual," that "two men could roll 400 lbs. per day" (see page 206), has induced me to write this. My 2 men are at work "rolling," and about 100 lbs. of heavy, and 60 to 75 of light, is the extent of 10 hours work for them; this included all the getting-ready and cleaning-up work, besides. I know that we could and did put as high as 40 lbs. per hour (when we were all ready) through the Root mill that we had, but it ran easy and smooth and was the best mill to manipulate I ever worked. The only trouble was in the foundation, a lot of which we are re-rolling, after re-melting and re-dipping. It is with foundation, as with other things, the best is reached with the most difficulty.

Mrs. Dunham once made up 83 lbs. of wax for me, and the print was excellent (the best Dunham I have ever seen in a lot), but she wrote me that she earned the foundation making it.

When the season is at a close and I have given all these varieties of comb foundation thorough trials, I will report my success with them, giving the reasons as they appear to me, etc.

Dowagiac, Mich., May 28, 1881.

For the American Bee Journal.

Covered with Snow, Bacteria, Etc.

J. F. KROPP.

I have 7 colonies left, out of 38 wintered on the summer stands. Of these an Italian colony, with a tested queen (the only Italian colony I had) is in good condition; the other 6 are weak. These 7 are the only ones that did not have the dysentery. My bees were too warm during the winter; they were covered by snow from the first week in December until Feb. 10, this being a mild day, I shoveled them out and found the bees very uneasy; 31 of the hives were badly soiled. Feb. 27 I examined them again and found 2 colonies dead and the most of the others were strong in bees; some of them had from 4 to 6 frames of capped brood (7 Gallup frames). I had 20 colonies on loose chip ground, 19 of these were among the first that died, early in March; the other 18 on solid ground fared better; ⅓ of them are alive yet; those on the chip ground had the dysentery badly, the hives were damp and the combs moldy, with plenty of sour honey in them.

Out of 200 colonies in my neighborhood there were, on May 1, 30 alive; 27 of these are in box hives, none less than 11 inches deep; 16 colonies of these belong to one man, which is ½ of all he had last fall; all were in box hives; they were on a bench 3 feet above the ground, with no protection whatever. I asked him what was the cause of his losing only ⅙, while others around him lost all? "I gave them 'vent' at the top, in the fall; I did not open them all, but of those that are dead the most of them had no 'vent.'" I bought 7 of these colonies; they are all strong in bees. I found that they did have vent enough—600 cubic inches of empty space in the cap above the bees, with 16 three-quarter inch holes in the honey-board; some of the hives had cracks in the covers. How is this for upward ventilation?

These bees must have consumed a large quantity of "bacteria," having used over 30 lbs of honey per colony. I do not place much faith in Mr. Heddon's theory of vegetable matter or bacteria in the food being the real cause of dysentery. I would ask: why did those 16 colonies came through without getting the dysentery, while the others in the same yard, and all the others in the neighborhood, except 2 colonies, died of dysentery? If there were only a few bees in a hive we might suppose that some colonies might get the honey that was not infected with bacteria. I think that it is unreasonable to suppose that all the bees of some colonies would gather thin honey from trees or nectaries infected, while others would not, even were the source infected that this honey comes from but for a short time; I doubt if all the bees of some colonies would pass it by.

Here is another case: I exchanged ½ of the combs of my Italian colony (they had too much honey for winter) for ½ the combs of another colony; this other got the dysentery badly; why did not the Italian colony get it, as they used the same kind of honey?

I hope that we will find out the real cause, and the prevention in a winter like the past. The Weekly Bee Journal I highly appreciate.

Varysburg, N. Y., May 18, 1881.

For the American Bee Journal.

Too Much Bee-Science.

WM. F. CLARKE.

An intelligent-looking old gentleman called on me the other day, stating that he wanted my advise, as he understood that I "knew considerable about bees." I modestly admitted that I knew a little about them, and he immediately proceeded to set forth his case. He had bought a colony of bees, a year ago, in a box hive. They had swarmed, and he had put the swarm in another box hive. During the past winter the young colony had died, but the old one was alive and well. The box they were in was very dilapidated, so much so, that it would hardly hold together. He wanted to get them into a better habitation. How should he do it? If he put a good, new box over the affair, would the bees have the sense to see that it was a more desirable home for them, and remove into it? I told him they would not. What then should he do? The old box would soon tumble to pieces; hence he was in a great dilemma. I explained to him the process of transferring. It was all Greek to him. He "never heard of the like before." After much talk and reflection, he concluded that there was too much science about the job" for him to undertake it. I gave him a brief summary of the principles of modern bee-keeping, showed him a movable frame hive, set forth its many advantages, told him all about extracting, queen-rearing, artificial swarming, etc. He became the picture of despair. There was "too much science" about the thing from beginning to end. I tried to persuade him to get a good manual of bee-keeping, to subscribe for a bee-periodical, and become thoroughly posted in apiculture. But he became despondent, thought he would sell his one colony, and have no more to do with such a complicated business. I frankly told him that he had better either master the science of bee-keeping, or give it up, and he left me to consider what he would do. I offered to give any advice and assistance in my power; invited him to call again, and did what I could to encourage him, with what success I have yet to learn. This man is an average sample of the great majority of those who try bee-keeping in Canada. They will not take the necessary pains to learn the principles of apiculture. They expect the bees to manage themselves. It is no wonder such men fail. But in so doing, they bring up an evil report against bee-keeping, say they have tried it, and found it a humbug. If people were to go into any other business totally ignorant of the way to manage it, who would be surprised at their failure?

How is it that intelligent persons, who would not expect any other business to run itself, get into this delusion about bee-keeping? In whatever way this hallucination has come about, there is ample evidence of its existence, and there is little danger that bee-keeping will be overdone, while there are so many under its influence. It will fall more and more into the hands of those who are ever investigating, always learning, and who deeply feel, that in order to a wise, practical management of their bees, it is impossible for them to have "too much science."

Listowell, Ont., May 12, 1881.

For the American Bee Journal.

Bees Do Not Injure Grapes.

JOHN W. STURWOLD.

In the latter part of September, 1879, while working among my grapes, consisting of about 200 Concord and Ives seedling vines (it will not be amiss to state here that I have my bees on the north side of the Ives seedling vines which give the best shade I have found), my attention was drawn to a Concord grape that was literally covered with bees, as busy as they could be, extracting the juice from some of the berries in an incredible short time. Having been told the year previous, by my neighbor, that bees destroyed grapes by piercing small holes in them and then sucking them dry, I now had an excellent opportunity to find out whether his statement and charge against the bee was true or not.

On examining I found that ¼ of the berries on each cluster had a small opening from the size of the point of a pin to that of its head, and these were the ones the bees visited. They would also alight on the sound ones, circle around them a few times, searching for an opening, I suppose, but failing to find such, leave for one that was punctured. As I could not examine them closely with the naked eye, I cut a few of the ripest clusters I could find, and took them to my room and examined them with my microscope, and separated the good from the punctured, and placed both on a board in front of one of my strongest colonies. It took them but a short time to empty the pierced ones, and although the sound ones were on the same board, and literally covered with bees, not one of the grapes was injured.

The next day I repeated the same experiment with 4 colonies, puncturing some of the berries myself, with the same result. Now, what the enemy is that first punctures the grapes, I do not know, but will perhaps find out this season, if my health is spared; but this much I do know, from my own observation and experiments, that bees are innocent of the charge—puncturing grapes, at least in my yards. If I had found them guilty I would not be slow to say so, and dispose of my bees, for I received a larger percentage from my vineyard the last few years than I did from my bees, but I candidly believe the good luck I had with my grapes is due to my bees.

Haymond, Ind., March 24, 1881.

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	Club.
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
Bee-Keepers' Magazine (A.J.King)	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T.G.Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., JUNE 8, 1881.

☞ Mr. J. T. Wilson, of Mortonsville, Ky., sends $10, and says: "Record me as a life subscriber to the Weekly BEE JOURNAL." That is a substantial *evidence* of *his* appreciation. We have pleasure in making the entry accordingly.

◆

☞ We have just learned that Mr. Frank Benton has secured 3 colonies of *Apis dorsata*, as a result of his researches in the East Indies. He has had a very difficult and dangerous task to perform, and but for his indefatigable courage and indomitable energy he never could have accomplished it. Bee-keepers throughout the world owe him a debt of gratitude, and will not, we hope, be slow to repay it.

◆

The College Report.—The report from the College was not correctly given in the minutes of the Central Michigan Association. We sold down in ths fall to 10 colonies; 5 of these were wintered in the cellar, and they are all right to-day. A. J. COOK.

Lansing, Mich., June 3, 1881.

◆

☞ We have received a very handsome Guide Book of the fifth season of the Detroit *Evening News* Excursions from Detroit to the sea; personally conducted by W. H. Brearley, Detroit, Mich. It contains maps, and full instructions, and is a very attractive book. Any one wishing to join in this excursion should communicate with the conductor.

◆

☞ The *Grange Bulletin* says that bee-keepers will have lots of company in disasters this year, among fruit-growers, cattle-raisers, and farmers whose wheat winter-killed. What with the army-worm, chinch bugs, locusts, and caterpillars, which are destroying thousands of plants every day, there is enough to annoy those in other branches of business, as much as "wintering" and "springing" does annoy and perplex the bee-keeper.

◆

☞ The Indiana State Fair is to be held at Indianapolis, Sept. 26, to Oct. 1. We have received the premium list, and find a premium of $5 for "comb-honey in 5 lb. boxes." What a sad commentary on the progressive ideas of its "Managers." The Vice President of the National Association should have prevented such an exhibition of ignorance concerning the popular marketable size of honey boxes. Bees are ignored entirely.

◆

Kansas for Bee-Keeping.—We are often asked about Kansas as a location for an apiary. Mr. T. J. Berry, Jewell, Kan., writes as follows, on that point:

I have kept bees here in Kansas, during the past year, and find it a splendid place for them. In Jewell county the bees have all wintered well, so far as I have heard, and they are doing well this winter, so far. I cannot do without the Weekly BEE JOURNAL, and so send my renewal for another year.

How to Rear Good Queens.

I keep a few bees for pleasure. I have had some now for 5 years, and always wintered them on their summer stands. I have never yet lost a colony. The top bar of my frames are $14\frac{3}{4}$ in.; bottom, $12\frac{3}{4}$ in.; sides, 13 in. I cover the inside of the hive well up with woolen cloth. The mercury here was 26° below zero, on several mornings, the winter being very long and cold. Please to give full particulars of the best way to raise first class queens.

I have read in the JOURNAL some particulars how to do it, but have never seen a plan so plainly given, so that I felt I could try it. C. H. HOWARD.

In order to rear the best queens, we should take the advice of those who have had the most experience, and the best results in rearing queens. We will therefore give the plans of several of our most careful breeders. The following is the plan of Capt. W. F. Williams:

In rearing queens, I select a strong, healthy colony, especially strong in young bees, and remove the queen. The next day, or as soon as the queen-cells begin to develop, I remove all the combs containing eggs or uncapped larvæ. I then select comb containing eggs only, from my best colony (usually from imported stock), and place it in this queenless colony, prepared as above. I aim to have my young queens hatch out on the 14th or 15th day. The 10th or 12th day I divide this colony, and prepare as many colonies by dividing strong ones as is necessary for the number of queens wanted. The 13th or 14th day I give to each colony, thus prepared, a queen cell. I then keep watch of the cells till the queen comes out. If well developed, with good wings, I mark the date of hatching; if faulty, I destroy her and give the colony another cell, or join it with another weak colony. As soon as my queens come out, I select my colonies containing drones, with which I desire to mate my young queens. If there is not a good flow of honey, I stimulate by feeding warm honey or sugar syrup to those hives containing drones, also those containing young queens. I usually put a few selected drones in the same hive with virgin queens. When my young queens are 3 days old, I close the entrances of my hives containing selected drones, and those containing virgin queens, to prevent egress of drones or queens. I generally do this about 11 o'clock a. m., or before the drones take their daily flight, which usually occurs about 12 to 1 p. m. Watch carefully their return, and when they are all in, let out your virgin queens, giving them a few minutes time to make observations regarding locality, then release your drones; do this daily until all are fertilized. If the weather is favorable, and your bees properly stimulated, you will seldom fail in having your queens fertilized by the 5th day.

Mr. G. M. Doolittle gives his plan, thus:

Our plan of rearing queens is this (and after the results of the past 7 years we have no reason to discard it): In the spring we select the colonies having the queens giving us the best results the season previous, and as early as possible get them strong in numbers. If we can do this in no other way, we give them brood from other colonies; but by a judicious spreading of the brood the object can generally be attained without help from other colonies. So we get them to swarm in advance of the rest, thus getting our cells or queens reared just as the bees used to rear them when they first came from the hand of the great Creator, and He pronounced them good. These cells we give to nuclei, which are formed to suit the requirements of the cells, and by the time we wish to use queens in the spring, we have queens that are just as good as those reared by any other method, and, we think, a little better. If we wish a further lot of cells from the same mother, we put the colony containing her in a hive filled with empty combs, and in two or three days, when she gets well to laying, we take away one-half of the empty combs, and put in place thereof frames of mostly sealed brood, from other hives, and in about 15 days thereafter we get another swarm with the same queen, and, of course, a fine lot of cells. So we keep on till the swarming season is over. Thus, by a selection of the best queens each year, and rearing them by the best plan, our bees may be improving instead of retrograding.

◆

The Results of the Past Winter.

Our requests for reports for a Statistical Table, showing the different phases of the mortality of bees, during the winter of 1880-81, has brought in quite a number of reports, but as it should be as full as possible, we defer the general Table for a short time, to admit those that will come to hand during the next week or ten days. Meanwhile we give below the tables furnished by G. L. Tinker, M. D., which we shall also incorporate into the full table when given, but now give it to show the doctor's views, and what he has learned. On account of having obtained a larger comparative number of colonies that were wintered in cellars and bee-houses, than those wintered on the summer stands, he finds that the mortality has been above 49 per cent.

Colonies in hives left on their summer stands, with, perhaps, a chaff cushion over the frames or other slight protection, or, more frequently none of any kind, are classed as

UNPROTECTED.

Colonies in.	Living.	Dead.	Per ct. Loss.
Champion hive	108	89	34
Box "	331	983	71
Graves "	9	25	76
American "	61	213	77
Langstroth "	213	1037	83
Gallup "	16	89	84
Kidder & Adair hive	13	78	85
Simplicity hive	9	84	90
Mitchell "	6	89	93
Total	766	2654	77
Deep frames			68
Shallow frames			83

Colonies in hives left on their summer stands, well packed with chaff, sawdust, or other material, are classed as

PROTECTED.

Colonies in.	Living.	Dead.	Per ct. Loss.
Bristol hive	303	14	4
Shuck's "	33	9	24
Doolittle hive	115	46	28
Box "	162	115	41
Quinby "	237	191	44
Champion "	42	33	44
Betsinger "	41	39	47
*Simplicity hive	247	242	49
Langstroth "	806	878	52
American "	60	68	53
Kidder & Adair hive	75	85	53
Gallup "	76	98	56
Mitchell "	77	108	58
Total	2277	1826	44
Shallow frames			45
Deep frames			46
Long and shallow frames			52

* This includes Root's chaff hive.

IN CELLARS.

Colonies in.	Living.	Dead.	Per ct. Loss.
Quinby hive	196	9	4
Simplicity hive	171	23	11
American "	145	25	14
T. S. Bull & Son's hive.	150	50	25
Langstroth hive	866	364	29
Doolittle "	80	43	32
Box "	98	55	35
Gallup "	80	50	38
Mitchell "	6	11	64
Betsinger "	9	74	88
Thompsen's Golden hive	0	21	100
Total	1801	725	28
Deep frames			20
Shallow frames			30

IN BEE-HOUSES.

Colonies in.	Living.	Dead.	Per ct. Loss.
Gallup hive	2	0	9
American hive	215	10	4
Quinby "	48	2	4
Langstroth "	285	29	9
Champion "	25	3	10
Betsinger "	70	80	53
Total	615	124	16
Deep frames			5
Shallow frames			23

SUMMARY.

Colonies in.	Living.	Dead.	Per ct. Loss.
All kinds of hives	5489	5329	49

The reports compiled are from the Northern States only, and indicate that the lowest rate of mortality has been in well-constructed bee houses, with walls from 15 to 26 inches thick, filled in with sawdust, tan-bark, etc., and built entirely above the ground, to avoid dampness.

The reports have also shown that bees require more ventilation in winter than is usually given; that the ventilation is best given at the top of the hive but may succeed well if given at the bottom; and that much of the loss in protected hives, on the summer stands, was caused by the packing over the frames being too close, or composed of material that would not properly absorb the dampness arising from the bees.

As to the best winter hive, the tables do not show such a great difference between the standard hives, as between the different modes of wintering. Advocates of deep frames, however, may take some consolation.

We would suggest those sending in reports to kindly follow the "form" given by Dr. Tinker, on page 163 of the BEE JOURNAL for May 25, 1881, and to send them as soon as possible.

◆

Chaff Hives.—Let me assure Mr. O. O. Poppleton (whom I would thank for his friendly criticism) that I did not consider our hives chaff hives. I speak of chaff hives and of packing as separate methods. I judge of chaff hives, not from my own experience, but from that of my neighbors. Most of them have lost heavily in using chaff hives during the past winter. The testimony of Mr. Poppleton is valuable and interesting. Let others give their experience. A. J. COOK.

Lansing, Mich., June 3, 1881.

◆

☞ Any bee-keeper who wishes to recruit up his health, could do it with pleasure and profit by going to the White Sulphur Springs in Virginia. Mr. E. C. Jordan, its owner, is an enthusiastic bee-keeper and a "prince," who makes all his visitors feel happy. We only wish we could spend a month with him; but we must "toil" in the office, and leave the pleasure to some who have the time and means to spare. Send for his illustrated circular, if you want to go to some good place.

◆

A New Business. — Novice remarks: "Our business is principally raising bees by the pound, and now bids fair to be, for years to come." We must confess to be a little perplexed at this assertion. We supposed Novice had a large factory for manufacturing "implements for the apiary," and that such was his principal business—but, of course, we must be mistaken; he certainly knows best what his "business *is*, principally." But it is "funny," nevertheless.

◆

☞ There is a great demand for bees, since so many were lost during last winter. Many will replenish their apiaries.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Seasonable Hints.—The *Indiana Farmer* gives the following seasonable hints:

The bee-keeper's wealth is not estimated by the colonies of which he is possessed, but by their strength, and the power and ability with which they are able to gather surplus honey.

Extra frames of comb packed away should be examined often. If they show signs of worms, they must be fumigated with sulphur.

Keep the grass and weeds cut away from around the hives. Much time is lost by bees falling in the grass. They may become chilled by the rain or dew in cool weather, or before they regain the hives fall victims to toads or spiders, and young queens returning from their bridal trip are liable to fall in the grass and be lost.

While working with the bees, avoid all sudden jars, quick, active motions, and never fight them. Careful handling will cure nearly all cross bees, while with careless rough handling, the most quiet will become cross. It is a part of the nature of bees to gorge themselves with honey when alarmed, and when in this condition, they rarely, if ever sting, unless pinched. Use the smoker judiciously, and avoid the disagreeableness of stings.

Transferring is best done early in the spring before the colonies become strong, or during fruit bloom, but by careful management, it may be safely done up to the middle of June. A very good time to transfer is after a colony has cast a swarm. At this time there are very few bees left in the old hive to be in the way of the operator. The combs being well filled with brood are strong and tough, and less liable to break down. To those of you who still have your bees in box hives, we would say, make or buy a frame hive and transfer your bees immediately. The advantages to be gained will well repay you for your trouble and expense pertaining to the change, and though you have only 1 colony, have it in good shape, and in such condition that you can examine it thoroughly, in case all should not be right with them.

Birds, Grapes and Bees.—The New York *Tribune* gives the following facts concerning the bee and grape controversy. Its correspondent, W, who made the charge that the Italian bees had punctured his grapes, says:

"In fairness to the bees, I wish to say that my charge against the Italians was expressly circumstantial only—the circumstances against them being a mad onset on the grapes of a Concord vine, which was covered with bees and roaring with their hum, about September 10, and on which nearly every grape was sucked dry. Such a thing had never been seen before, in more than 30 years' experience with bees and grapes, until now that Italians were established in a large apiary near. Circumstances in favor of the bees are: 1. That some berries escaped, that bunches left accidentally on other vines near were untouched—the whole crop having been gathered rather prematurely in alarm; 2. That there were but few bunches, and those very large, owing to frost having killed the blossoms in May; 3. A heavy continuous rain in the early part of September so urged growth that it is possible that the tender skins of the Concords on this vigorous vine may have bursted from the gorge. We may find out more hereafter."

Another of its correspondents, Mr. J. H. M., North Evans, N. Y., gives the following criticism on Prof. Cook's article on this subject:

"Prof. A. J. Cook leaves your readers to infer that he now inclines to the opinion that, "from the fact that bees are able to cut away strong paper, and even factory cloth," it is something analogous to the tearing open of grapes. I am not able to see that it is analogous. Paper and cloth are manufactured from fibrous materials and the bees are able, with their mandibles, to separate the fibres, but not cut them. In my earlier experience with bees, I used strips of cotton cloth and pieces of cotton string to tie the transferred combs into frames, and would remove them in 2 or 3 days, and always found that the bees had attempted to remove them by tearing the fibres apart, but never saw a string or piece of cloth cut. If bees were able to cut open grape skins, we would all know it; there would not be any doubt about it; the grapes would disappear more rapidly than cherries, before the cherry birds and potato vines—before the Colorado beetle."

Mr. D. J. Ellsworth, of Connecticut, gives the following facts:

"The damage done to grapes is getting to be a serious matter. I wonder I have seen so little in print about it, and that we should be kept so long in doubt of who the enemy is. I have a single hive of bees, and we naturally inferred it was their work, but last fall I was informed by a neighbor, that it was all the work of the fire-bird (Baltimore oriole), that he had seen them at work, and I readily gave them credit for it; they are adepts at opening peas. This man has quite a number of bees, but he declares they are innocent. I do not believe bees can break through the skin of the grape, and the work is done with a rush."

The Care of Swarms.—Mrs. L. Harrison, in the *Prairie Farmer*, says:

As soon as a swarm is fairly clustered, it should be hived, before the scouts return, who have been sent out to find a suitable home. If they have clustered upon a limb of a tree, which the owner is willing to cut off, it is easily done by sawing it off with as little jar as possible, and laying it in front of their future home. A little smoke may be used to drive them in. The hive should be cool and clean, and placed in the shade. A new swarm will often desert a hive, if left in the sun after hiving. Where the owner has a hive of comb, free from moth worms, it should be given to a new colony, for while they are building one pound of comb, they will store 20 lbs. of honey.

Clipping Queens' Wings.—The *Indiana Farmer* contains the following:

Although there be some disadvantages in having the wings of the queen clipped, still we believe the advantages are in favor of the clipping, while, as a general rule, the bees do not leave for the woods without first settling, they do sometimes leave without any forewarning. The clipping of the wings does not prevent the bees from swarming, but the queen being unable to accompany them, they will return to the hive as soon as they have discovered her absence. They may try again next day, if something is not done to prevent. If let go they are likely to try several times, or in waiting until the young queen is hatched will come out with her, when they have cast a swarm and gone back to the hive; the combs must be examined, divided, or the cells cut out, the latter of which is a poor preventive, as they will soon build them up again. It is only necessary to clip the tip of one wing. This will prevent her flying, and does not disfigure her. The queen should be handled as little as possible. In clipping, take the queen by the thorax between the left fore-finger and thumb, raise the wing with the point of the scissors and clip, being careful not to injure her. Never take her by the abdomen, as a slight squeeze is liable to kill her. If you practice natural swarming with the queens' wings clipped, as soon as they commence coming out, keep a look out for the queen, secure her, put her some place out of danger. Remove the old hive, place an empty one on the stand, wait until the bees commence coming back, turn her loose with the bees. They all go in together, and the hiving is done.

The Large Bee of Java.—Mrs. Harrison in the *Prairie Farmer*, gives her views thus:

Much money and time is now being spent by several parties, to introduce the *Apis dorsata*, whose habitat is Farther India and adjacent islands. This bee has never been civilized, but attaches its comb to the limbs of trees, and is said to build its comb 6 feet in length. It is doubtful whether it could be taught to dwell in a hive, or endure the winter's cold. The desirable trait sought in this bee. is the great size. Many of the flowers of the Torrid zone are of great size, and an all-wise Creator adapted the bee to their wants. The *Apis dorsata*, if successfully introduced into this country, may be as much too large for our flora as the native bee is thought to be too small. A bee that can work upon red clover, has been much sought for by apiarists, and some now claim to have it, and obtained it by carefully breeding those of the longest tongues. Hardiness is another desirable trait to be sought after by those desiring the best bee.

Uses for Glucose and Grape Sugar.—The *Popular Science Monthly* contains an article by Professor Wiley on the manufacture of glucose and of grape sugar, the latter being simply an extension of the process for making the former.

This industry sprang up about 12 years ago, and is rapidly extending. Glucose is a sweet syrup made from corn starch, resembling in appearance the molasses of cane sugar, and by reason of its greater cheapness largely affecting the consumption of the cane product. Grape sugar is made to resemble a finely-powdered sugar, and is used extensively to adulterate the sugar of commerce.

Glucose is used chiefly for the manufacture of table syrups, but also in candies, as food for bees, by brewers both in this country and in England, and for making artificial honey, the combs being moulded out of paraffine.

Grape sugar is also applied to some of the same purposes, but principally for the adulteration of other sugars.

The cheapness with which glucose syrup and grape sugar can be produced has led to its extensive use. The most flourishing manufactories are at the West, where corn was bought last year at a little over 30 cts. per bushel. As from 26 to 32 lbs. of glucose syrup or of grape sugar are made from a bushel of corn, the average cost of either to the manufacturer is about 1 ct. per lb. As he sells either article at 3 to 4 cts. per lb., the business is a very lucrative one, and is rapidly extending.

On the 1st of August, there were 10 factories in operation in the United States, consuming daily about 20,000 bushels of corn. There were also in process of construction 9 other factories, with a total daily capacity of 22,000 bushels of corn. Prof. Wiley estimates that not less than 11,000,000 bushels of corn will be converted into glucose and grape sugar during the present year, and says that "every indication leads to the belief that the amount will be doubled in 1882."

In the above extract Prof. Wiley is forced to admit that glucose has no legitimate useful purpose to which it is put, or for which its manufacturers *dare* to advertise it! In the third paragraph he admits that its use is "principally" for "adulteration," and the only excuse for making it, is the fact that it can be manufactured at a cost of one cent per pound, and can be sold for 3 or 4 cents—thus making it a lucrative business. It seems to us that any respectable journal should "blush to murmer," or even to breathe, an excuse for making the villianous trash, whose only excuse for existence is fraud and swindling, cheating and imposition, deception and adulteration!

GLEANINGS.

Glucose for Feeding Bees.—Mr. Root cautions all against feeding grape sugar for winter stores, and says: "The first experiment I ever made with it, for wintering, caused the death of two colonies." He then adds:

The case Mr. Langstroth mentions in the BEE JOURNAL of May 11, seems to show very conclusively that grape sugar should not be used for winter stores, and I cannot see why our friend McCord should have done so foolish a thing as to have given the greater part of the stores of 36 colonies a feed mostly grape sugar. Although I have never known a good article to produce dysentery, I should have certainly supbosed it would have hardened in the cells so as to starve them.

The Best Bees for Wintering.—Mr. H. B. Harrington remarks:

The Cyprians wintered the best of any bees I had. The Holy-Lands did not winter quite as well, but were not in as good condition in the fall. They will get up earlier in the morning, fly faster and further than any other bees I ever saw. The queens are very prolific, and they build up strong, very quickly in the spring.

New Way of Putting Wires into Foundation.—Mr. A. I. Root gives the following plan:

I picked up an ordinary button-hook, such as ladies use for buttoning their shoes, and after filing a little groove in the back of the hook, so it would not slip off the wire, I found it was even better than the wire, friend Bliss sent. You want your frame all wired as usual, and your sheets of foundation cut so as to just fill the frames. Have a board also, cut so as to just slip inside the frame. Lay the wired frame over the board, and put the sheet of foundation between the diagonal and upright wires. Now run your button-hook along on each wire, with force to imbed the wire slightly. Turn the frame over, and do the same with the diagonal wires, and it is ready to hang in the hives.

Stingless Bees.—In reply to several important questions, Mr. H. Burmeister, of Buenos Aires, South America, says:

Stingless honey bees are without exception *melipones*.

They live in hot and woody countries, and are not found near Buenos Aires. Near Mendoza I found a plentiful kind of *Melipones anthidioides;* another smaller and more unknown kind I caught near Tucuman. Both of these kinds produce no honey. The honey of the insects of this hot climate is produced by a kind of wasp, such as *Lechiguana* or *Polybia sceetellarics* and *Camuati*, known as *Nectarinia lechiguana;* both of these kinds are plentiful, but not as far south as Buenos Aires.

The honey-gathering *melipones* live in large companies, as do our honey bees; but it is not yet known whether they send out swarms, or how they multiply. In Brazil it is the custom to take a few egg-containing combs (of several kinds) and put them in boxes near by, to induce them to be domesticated, and sometimes with success; but not always, and their new home must always be near their old one in the forest.

The honey of these *melipones* is more flowing than the honey of our house bees. If it can be crystallized, it is not known.

The webs are upright, and the cells horizontal, like those of our bees, but are generally much smaller; the wax is dark—almost black. I got some in Tucuman to look at.

It is impossible to cross them with our honey bees, as both live in great hostility to each other.

The *melipones* have the power, like ants, to eject a biting fluid, which produces a burning sensation; there are about 40 different kinds known; they attack persons in the face who disturb their home, and are very troublesome.

SELECTIONS FROM OUR LETTER BOX

Bees are Booming.—The ground is covered with white clover. We had honey dew this morning. The bees "sung" gloriously, as soon as it was light. Sumac, which exists here in 2 varieties, is coming on finely, and affords the most of the surplus honey in this section; it is rich and secretes beautiful and delicious honey. I can only repeat what hundreds have said about the Weekly BEE JOURNAL. "I like it." MARTIN LEIDY.

Carthage, Mo., May 27, 1881.

Cannot wait for Monthlies.—When my term is out for the Weekly BEE JOURNAL, send it right along. I cannot do without it. It is the paper for the apiarist. Once a month is too long to wait, in these *fast* times, and, "don't you forget it." W. S. BUCHANAN.

Hartford, Ind., May 27, 1881.

Pleased with the Cyprians.—My Cyprian queen wintered well, and I am pleased with her bees, so far, although I do not find them so easy to handle as the Italians; they shake from the combs as reaady as the blacks. Out of 134 colonies I have but 30 left. Most bee-keepers in this locality have lost from 5-6 to all their bees. J. E. MOORE.

Byron, N. Y., May 28, 1881.

Determined to Achieve Victory.—My 21 strong colonies of hybrid bees were wintered on the summer stands, without protection, and I have 5 strong colonies lett; the balance have gone to "de oder side ob Jordan." I used the following hives: 2 American, 4 farmer's friend, 6 Langstroth, and 9 Armstrong's Centennial. I now have 4 strong colonies in Armstrong's Centennial, and 1 in Langstroth hives. I regard the former the "boss" in every particular, and I shall use no other, hereafter. I expect to Italianize most of my bees this summer. I have purchased 3 tested Italian queens from 3 of your distinguished advertisers, and expect to receive them in a few days. I am not yet discouraged, but am going into the battle, this time, determined to achieve victory. The prospect for honey here this season, is rather good. The way I like the Weekly BEE JOURNAL is "too numerous to mention." Long may it live. THOMAS J. WARD, J. P.

St. Mary's, Ind., May 26, 1881.

My First Winter.—I put 5 colonies into winter quarters, all in good condition, in double-walled, sawdust hives, on summer stands, protected on the inside with cushions, etc., on the outside with leaves, banked on 3 sides, and boards on the fourth, so arranged as to keep the wind from blowing and the sun from shining into the entrance, and no upward ventilation; with some trouble I gave them a flight in the middle of February and they came through beautifully. I noticed the first pollen April 2; during this month I fed diluted maple syrup, out-of-doors, sparingly, and they built up surprisingly. On May 1, I transferred 4 of them to notch cornered Langstroth frames. On May 5, I had my first swarm (a very large one). The queen's wing being clipped, they went back, and 2 days afterwards, came out again, my efforts to the contrary notwithstanding. So, very unwillingly, I divided; I wanted to drive them into boxes, but I was a little late, or rather they were very early, as at that time the leaves on the trees were only in bud; honey, however, was very plenty, as I had extracted from 3 colonies to give the queen room, and 1 colony was at that date, May 8, building comb in side boxes. Our fruit bloom has been largely spoiled by a long, cold storm, so we shall have a set back, I suppose. It may be worth mentioning that the colony which was building in side boxes was wintered in a glass observation hive on Langstroth frames, with division boards on each side, and entire glass back. The only difficulty I have to encounter is that my business takes me into the city every day, from 8, a. m. till 5, p. m., so that I labor at a disadvantage. On May 22, I had 2 swarms; I shall have my first box honey inside of a week.

FRED C. BOWDITCH.

Brookline, Mass., May 20, 1881.

The Relative Merits.—Will some prominent breeder (Mr. Alley, for instance) give in the BEE JOURNAL his views concerning the relative merits of the 4 varieties he is breeding? We, who have only one kind, do not care to introduce into our apiaries bees that we know nothing about; while if we knew a little more about them, we might get them immediately. H. L. G.

Loss 2 out of 40 Colonies.—My bees are doing splendidly now, I have already had 6 swarms. I lost 2 out of 40 colonies, wintered on the summer stands, in the Mitchell hive. I would as soon see a swarm fly to the woods as to miss one copy of the Weekly BEE JOURNAL. H. WHITE.

Woodbury, Ky., May 28, 1881.

Are Bees a Nuisance?—Will every bee-keeper who can afford to donate the time and a postal card, please send me a postal card stating in brief what he may know in regard to bees being a nuisance; where and under what conditions they are allowed to be kept, and if there has been any actions on the part of corporations or individuals to move them, and the success of the same. I hope to receive a personal reply soon, through the mail, and to be able to reciprocate the favor.

JAMES HEDDON.

Dowagiac, Mich., May 30, 1881.

Losses of Bees in Minnesota.—As many are in favor of a general report to be published in the JOURNAL I will give mine, with others in this vicinity, as far as I am posted: I had 147 colonies, in good condition, with plenty of nice sealed honey last fall, packed them with chaff 5 inches all around on the outside, with entrance contracted, no cushions on side or top, nor contraction of frames, but left them as they were through the summer, 9 and 10 frames, 18 inches long by 11 deep, Langstroth hive on summer stand. I have now 55 colonies alive, about a dozen are rather weak, the rest are doing well; my whole bees have wintered well until about the 15th of Feb., when they commenced getting the dysentery, which by further confinement kept on until the 24th of March, on which day they had their first general cleansing flight and 95 were alive then; quite a number of them were weak and dwindled away, and some swarmed out which had nice and clean, combs, plenty of honey, and quite a lot of brood and eggs, till they were reduced to 55 colonies; long confinement with too much pollen in their hives, I believe, was the cause of the dysentery. The following is the loss of others, unprotected: A. 25 colonies, tree and box hives, lost 21; B. 6 colonies, Langstroth hives, lost 6; C. 6 colonies, Langstroth hives, lost 6; D. 6 colonies, box hives, lost 6; E. 11 colonies, Langstroth hives packed on 3 sides, lost 1: F. 15, Langstroth hives in cellar, lost 1; F. 40, Langstroth hives, partly packed late, lost 39. They were all on the summer stands except the 15 mentioned in cellar. Others of whom I don't know particulars have lost nearly all. C. THEILMANN.

Theilmanton, Minn., May 31, 1881.

The Best Hive for Winter.—In the fall of 1880 I had 75 colonies of bees. About the middle of November I put 40 in a cellar and left 35 out-of-doors. The latter I put in 4 rows, moved the hives close together, packed straw all around, leaned an 18-inch board on the back side, and darkened the fly-hole with a small board. Feb. 22, the first warm day, I moved all from the cellar; all were alive but 2. Since then I have lost about a dozen; I have 60 colonies now. I use the Langstroth hive, and one 10x12. All in the former were poor in bees, compared with the latter. I think the Langstroth hive very poor for wintering in cold weather. In March, when the weather was cold, I opened some Langstroth hives and found bees in one end of the hive and the honey in the other, and the bees dead and dying. By a temperature of 20° above zero the bees did not move towards the honey, but stayed where they were till the honey was all gone, and then died. I saved many in this condition by putting a frame with honey over the top. All in my 10x12 hives wintered and bred up better and to-day are far ahead of those in the Langstroth hives; I think that hive calculated for business, without reference to the nature of bees. Who ever found a bee tree 17 inches in diameter? Let a certain number of people on a cold day stand in a cluster and they will feel warm; stretch them in long lines and notice the difference! I have some hives made with frames 9 inches wide and 12 inches up and down. Such will not let them starve with plenty of honey in the hive, will resist the cold better, and assist breeding. They have 12 frames and are 2-story. I think broomcorn would make a good hive, ¾ of an inch thick, put in a wooden frame. Plaster put on straw destroys the good non-conducting quality of straw. The second story could be make of wood. I think bees died from cold and long confinement, not from Mr. Heddon's bacterias. I think the Weekly is a credit to its editor and a sample of his enterprise. I never expected it would succeed half as well.

T. HULMAN, SR.

Terre Haute, Ind., May 29, 1881.

My Visit to Texas.—The Texas bee-keepers' held their State Convention under an apple tree planted by Judge W. H. Andrews. The weather was delightful, and the bees were swarming as well as the bee-men; 9 swarms issued on the first day of our meeting, and 5 on the second day. A more pleasant and enthusiastic convention I never attended; the members seemed to be very anxious to promote the science of bee-keeping. Texas is a splendid country for bees. They winter well, without the least protection. I have visited several apiaries, and find that many bees are kept in Texas. Mr. Collins, who has traveled extensively over the State, says that bees do well all over it, and that they gather large crops of honey. I have visited a number of bee-keepers' in different Counties—but all in Northern Texas. I find bees in good condition. Natural swarming is the order here; they complain of too much swarming here. Black bees in box hives can be bought from $2 to $3 per colony, and in movable frame hives from $3.50 to $5. I visited one bee-keeper who has 90 colonies in American and simplicity hives for sale. He says he sold 2,000 lbs. of box honey last year at 15 cts. per lb. His bees are mostly hybrids; he has them in nice condition. Bees do well here on the water courses. The soil is very rich and productive; weeds grow to perfection; bees gather honey from the ratan, a climbing vine which is common here in the timber. Of the honey producing plants that grow spontaneously on the prairies and water courses, the mints of which there are several varieties, (called here horse mints), stand at the head of the list. They are not like the horse mints of the Middle and Northern States. The clovers do not grow here. I saw melilot clover at Judge Andrews' in Collin Co.; it is being tested, and should it do well, will be extensively cultivated.

N. P. ALLEN.

Wintering Bees in a Wet Cave.—I made a cave by digging 4 feet, as deep as I could drain (our country being flat) and built the rest on the top of the ground, which was about 2 or 2½ feet, and walled with lumber. I put heavy timber across the top with a solid brace under the center to support it, and covered with plank. The entrance was 6 feet long on the south side, which I put down as low as the bottom of the cave-like cellar, with one door in each end, and from the outer end of this were steps, covered with an inclined door. When this was arranged, with a team I scraped dirt on this until it was 3 or 4 feet thick. It has 2 ventilators, one on each side 60 feet long, which turn up about 3 feet, to exclude mice (one with wire on the end froze over for me), these were 4x6 inside, made of fencing lumber; one of these was over the ditch, and had an escape pipe with an elbow to exclude light in the top, which was 2x4 inside. I put in 63 colonies, and 2 nuclei (and 4 for my neighbor), being weak ones, and, on April 13, took out 59, nearly all in fine condition. I have since united down to 53, which are now all ready for clover, but about 8 are rapidly coming up. I call a clover swarm, one from ¾ to 4-5 full of brood, having 12 brood-frames of about 96 square inches. Those of my neighbor's came out all right. I would like to call attention to this fact, that this cellar had water in it all the winter. In November, and a part of December, I carried in water, and then we had a rainy spell that nearly thawed the ground; this soaked through the top, which was nothing but fresh dirt, and dropped through all over the hives, standing in great drops on them for about 6 weeks. Water about an inch deep stood on the bottom, and from the time the rain came, in February, the water was soaking in and running through; several times surface water ran in at the ventilators, besides the dropping and soaking in at the sides. I was alarmed at times to see the condition of things, but the bees seemed to be all right. I thought the combs would mold, more especially those that were on the bottom, as the water often touched the hives from the bottom; but there were not a dozen moldy combs in all. I observed closely, and the mercury was never below 38°, nor higher than 45°, during the whole time standing at 40°, when the water was pouring through, and the bees were so quiet that you could not hear a stir among them. That encouraged me, as I thought they were all right when they were so quiet. They also wintered on fall honey, mostly smart-weed, and consumed very little. My bees are Italians. BARTLETT Z. SMITH.

Tuscola, Ill., May 29, 1881.

An Early Swarm.—I had a very large swarm to-day; I do not think it can be beaten north of the 40th parallel. The losses in bees have been very heavy in this county, and those left are weak. All are black bees but mine. My bees are very strong, and some are working in the boxes. They were wintered on the summer stands.

L. A. LOWMASTER.

Belle Vernon, O., May 29, 1881.

☞ The next meeting of the Cortland Union Bee-Keepers' Association, will be held at Cortland, N. Y., Tuesday, August 8, 1881.

C. M. BEAN, *Sec.*

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 15@18c. for strictly choice white comb in 1 and 2 lb. boxes; at 10@12c. for common dark-colored and broken lots. Extracted, 7½@9½c.

BEESWAX.—Choice yellow, 20@23c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 14@17c.; dark 11@12; large boxes 2c. less.—White extracted, 9@10c.; dark, 7@8c.

BEESWAX.—Prime quality, 20@25c.

CINCINNATI.

HONEY.—The market for extracted clover honey is good, at 8@10c. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY—Most of the honey now in market, both in first and second hands, has been either withdrawn or placed at a limit above current rates. This action is confirmatory of the unfavorable prospects heretofore referred to. We quote white comb, 12@14c.; dark to good, 9@11c. Extracted, choice to extra white, 5¾@6¾c.; dark and candied, 4@5½c.

BEESWAX—21@22c., as to color.

STEARNS & SMITH, 423 Front Street.

San Francisco, Cal., May 21, 1881.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct, 11, 12—Northern Michigan, at Maple Rapids.
12—Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SPECIAL NOTICES.

☞Single copies of the JOURNAL are sent postage paid for 5 cents each.

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☞Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

☞When changing a postoffice address, mention the *old* address as well as the new one.

◆

☞The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

◆

☞We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

◆

☞Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

◆

Many Lose Their Beauty from the hair falling or fading. Parker's Hair Balsam supplies necessary nourishment, prevents falling and grayness and is an elegant dressing. 22w4

◆

☞Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

☞We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

◆

☞Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

◆

☞Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

☞The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

◆

PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

◆

☞At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

◆

☞It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Postoffice, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

An Old Lady writes us: "I am 65 years old and was feeble and nervous all the time, when I bought a bottle of Parker's Ginger Tonic. I have used a little more than one bottle and feel as at 30, and am sure that hundreds need just such medicine." See advertisement. 22w4

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From this world to that which is to come. This remarkable book, as every one knows, was written under the similitude of a dream, by John Bunyan, the most popular religious writer in the English language; and perhaps more copies have been sold than any other book except the Bible. Our edition is complete and unabridged, with appropriate illustrations.

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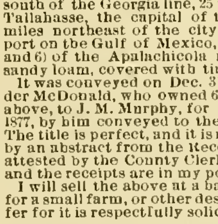

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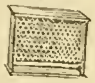

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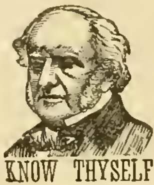

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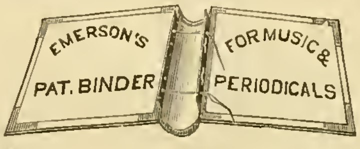

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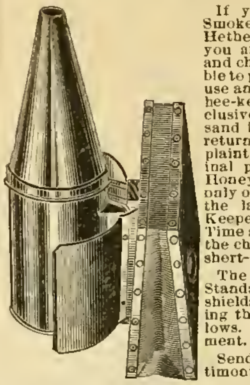

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CORRESPONDENCE.

Translated for the American Bee Journal.

Bees Feed each other in Winter.

DR. DZIERZON.

Messrs. Greiner Bros. have favored us with a translation of the following article from the *Bienen-Zeitung:*

Some time ago the question was asked: How do bees provide themselves in winter with food; do they individually take the honey out of the cells, or do they transmit the same from one to another? In the fall, when there are yet numerous uncapped cells of honey within or near the cluster, they probably feed in the way first mentioned; that this cannot be the case in winter, when all the uncapped honey in the winter quarter is exhausted and when only the top, or may-be one side of the cluster is anywhere near the stores, cannot leave any doubt. If the honey in nearly all the spaces which the bees occupy is consumed, and only one side of the cluster has access to the stores, the colony suffers no inconvenience on account of hunger, as long as there is perfect communication throughout the cluster. The bee passes every drop of food she can spare to her hungry sister, which meets her with outstretched tongue to receive the charitable gift of her fellow-insect; when the supplies fail and starvation takes place, the colony dies together in a body.

The question might arise here, How is it possible that bees in a compact cluster, as they are in midwinter, can succeed in transmitting food from one to another throughout the entire cluster? Well, according to my observation, it takes place in the following way: The bees take, after certain periods through which they are in a semi-torpid state, a certain amount of food; they effect, when preparing for these meals, an excitement—the temperature rises, the cluster spreads and enables the bees to communicate among themselves; the capped cells are then opened, or if such are not yet within reach, empty combs are gnawed, and even holes cut through them to open passages to the necessary provisions. If it is, therefore, noticed in the winter that a hive has an uncommon quantity of these wax chips under the frames or near the entrance, it is a sure indication that starvation is at the door.

That bees in their winter quarters change their position whenever they are compelled by hunger, I had occasion to observe in a housed colony last winter. The building was, in regard to change of temperature and light, completely protected, so that my bees were kept perfectly quiet. When I opened the straw-door of the hive carefully, the bees did not make the least noise or get in any way excited. There was no chance for these bees to get around by outside means, and still I found weekly (the usual interval of my examinations) on the outside comb next to the door, small clusters or scattered bees which were sometimes only chilled, and by warming them were brought back to life again, and sometimes were gone beyond human aid. This can only be explained by supposing that the bees, although not disturbed by any outward cause, excited themselves and spread the cluster for the purpose of taking food, after which they gradually contracted again, and left these few to perish on the outside by becoming detached from the cluster and chilled. In this way, perhaps, most of the bees that die in winter are lost. This can be prevented, to some extent, by cutting passages through the combs within the cluster, and a still better plan is to lay a comb of honey on the frames in such a way as to allow the bees a free passage from one space into the other.

To the question, After how long an interval do bees repeat this feeding process? a positive answer cannot be given any more than we could fix the exact amount of honey it requires to winter a colony. This is governed by temperature and season generally. When extremely cold, we conclude from the humming noise we hear that bees are in this excited state almost continually, and it is, perhaps, not over-rated to say that they eat more on one such day than they would otherwise in a whole week.

It is certain that bees, if they are not compelled to create an unusual amount of heat, can still live after every drop of honey in the hive is consumed; but how long they will survive under different circumstances and still be capable of perpetuation, is a matter for further investigation.

* * *

From the American Naturalist.

Bee's Tongue, and Connecting Glands.

JUSTIN SPAULDING.

My own observation, so far as the ligula is concerned, agrees with Prof. Cook's (see Naturalist, April, 1880), and I think he has given the true solution when he says it consists of a sheath slit below, within which is the grooved rod, and projecting from the edges of the latter to the edges of the sheath, is a thin membrane, forming, as will be easily understood, when the rod is extended or thrown down, an enclosed sack, open only at the top. For the benefit of those who may still doubt as to this structure, I have drawn, under the camera, a very fine cross section of the ligula, kindly loaned me for the purpose by my friend, Mr. David Folsom. He has succeeded in cutting it from a specimen with the rod thrown out of the sheath (see Fig. 5).

In going over the work of Mr. Hyatt, while examining a mounted specimen of mouth parts, my friend, Mr. F. B. Doten, pointed out, in the mentum, a small spiral tube that gave me a clue, which followed up, has resulted, as I believe, in a slight addition to our knowledge of the parts. I am unable to find any mention of the glandular structure, a description of which follows. The drawing, No. 1, showing the head, is somewhat diagramatic, structures that might confuse being neglected. The specimen here represented was taken while fresh, pressed flat, dried under pressure, bleached in turpentine and mounted in damar.

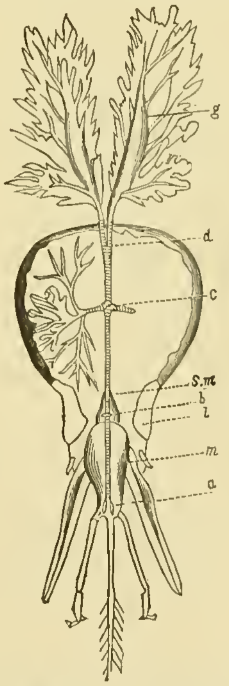

FIG. 1.—Diagramatic. *a*, point where spiral tube enlarges; *m*, mentum; *sm*, sub-mentum; *l*, mandibles; *b*, opening into mouth; *c*, entrance of ducts from head; *d*, junction of ducts from thorax; *g*, glands in thorax.

It shows the structure as represented, from the tip of the ligula to the opening in the mouth at *b*. Beyond that I had to resort to dissection, not extremely difficult with a sharp scalpel, a steady hand and patience. It is best performed on alcoholic specimens, and the magnified drawing, under camera, of the gland from the thorax (see Fig. 3), it will be understood is somewhat shrunken on that account.

Running the scalpel from the base of one mandible back across close to the neck and forward to the other mandible, turn forward and pin, remove the brain and salivary glands; cut the œsophagus as far forward as possible, turn it back, and if all has been done carefully, one sees coming from the thorax the spiral ducts of two glands, which will be found, on following back, lying one on each side of the œsophagus, in the space between the muscles of the wings. I have given one of these, Fig. 3, magnified 35 diameters, as drawn under the camera. It could be but little more than outlined, as it was a dense mass of coiled and twisted glands, the true structure of which is shown (Fig. 4) still more magnified.

At the base, the duct enlarges, as is seen, into quite a reservoir. The ducts unite within the neck, or just as they enter the head, and following the floor of the latter, are joined by a pair coming in right and left (Fig. 1, *c*). Following up one of these side glands, we find it dividing into 3 main branches, ultimately terminating in glands, the structure of which is shown in Fig. 1, much enlarged. It will be seen that the glands from the thorax bear a striking resemblance to the Malpighian tubules of insects, while those from the head are larger, different in shape, and composed of much smaller cells. Keeping to the floor of the head, the main duct passes on to the sub-mentum. Here on joining the spiral tube coming from the ligula, it passes by an opening common to both into the mouth at *b*, Fig. 1. Below the opening the spiral tube dips into the mentum, and is imbedded in its muscles.

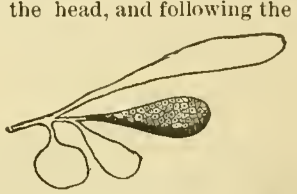

FIG. 2.—Fragment of glands of head magnified.

At *a* (Fig. 1) it seems to terminate, judging from a side view, but a series of cross sections shows it to gradually widen from *a* (Fig. 1) to near the base of the ligula, where it terminates in a chamber that leads above into the sack, and below by a valvular opening into the groove in the rod. This trumpet-shaped part from *a* to the chamber at the base of the ligula, is collapsed, the upper half of the tube being pressed down into the lower half.

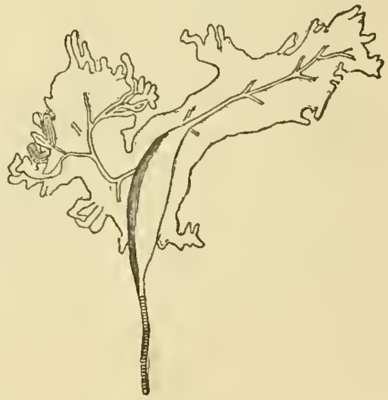

FIG. 3.—One of the glands of the thorax, magnified thirty diameters.

Thus we have a passage from the tip of the ligula through the groove in the rod, and the spiral tube in the mentum to the opening in front of the pharynx, above the labium and between the mandibles. This opening is transverse, and seems to have lips, and from its appearance we should expect it to close like a valve, if suction was applied below.

Meeting this tube from the lugula, and discharging its contents through the same opening into the mouth, is the spiral duct from the glands of the head and thorax.

The questions are at once thrust upon us, whence comes this structure? and of what use is it to the bee? If I was wise the article would end here, but our inclination to explain everything by resorting to speculation, is always strong in the absence of facts to curb it. It seems but natural from the size, position and outlet of the glands, connected as they are with an inlet for the nectar of flowers, to conclude that they are organs that furnish the animal secretion that changes nectar into honey, and I would venture the suggestion that they may be the spinning glands of the larvæ modified. If this is true, I should expect to find them either in an active or aborted condition in nearly all Hymenoptera.

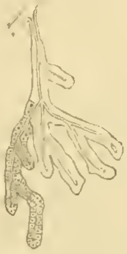
FIG. 4.—Fragment of glands of thorax magnified.

Another question raised, is, in what way is nectar carried from the flower to the mouth? This must be, from the nature of the case, largely a matter of speculation. Prof. Cook, in his article, says: "The tongue is also retracted and extended rythmically while the bee is sipping." May not this motion be due to a pumping action of the grooved rod of the ligula, that enlarges and diminishes the size of the sack lying behind it? It would seem that the bee has perfect control of this rod, that it is remarkably elastic, and capable of much extension and contraction. The rod and sack thus acting as a suction and force pump, as will be easily understood by one familiar with the parts.

Of course I cannot say that the bee makes this use of it, but I do say it should, and if it does not, it is pure stupidity on its part. And if some one demonstrates that I am all wrong now, evolution, at no distant day, will set me right, for there will be born a bee, less conservative, that will dare defy old usages, and take a new departure; that bee, trust me, will make use of this cunningly-devised apparatus, and produce honey cheaper than any competitor, excepting the glucose man, and I hope and trust may worry even him.

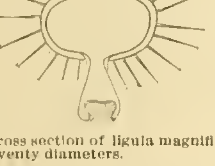
FIG. 5.—Cross section of ligula magnified one hundred and seventy diameters.

For the American Bee Journal.

The Coming Bee, or Apis Americana.

J. F. FLORY.

As the "coming bee" seems to be the great absorbing question of the day, I will give my opinion as to "how to catch him," after an experience of over 25 years of bee-keeping in Virginia, Iowa, and California.

In July, 1861, while in Iowa, I obtained my first Italian queen from Mr. Langstroth, which, I think, were the first Italians west of the Mississippi River. For some 6 or 8 years I "bred for stripes," as that seemed to "be all the go" then; but I finally came to the conclusion that honey paid better than stripes, and so changed my tactics and soon had the satisfaction of knowing that I was right.

In April, 1872, I sold out in Iowa, and came to California, landed at Lathrop, near here, May 2, and on the 8th I took a lot of foul broody bees on shares. This was the first foul brood I ever saw or handled, and I do not want to handle any more, although I do not dread it like I used to, since I have learned how to handle it. Then on the 15th of November following I bought 45 colonies, intending to make bee-keeping my business while I remained here. And now, in as few words as possible, I will tell you how I have managed them ever since, and let you be the judge as to whether I acted wisely, and if I am not on the track of the "coming bee."

I tacked a label on each hive, and made a note, not of their stripes (some had 1, others 2 and 3, and some had none), but of the amount of honey taken from each one, also of their other bad and good qualities; then, when the season closed, I made a note of each colony, in my memorandum book, selecting my "breeders," and condemning those with undesirable qualities, while all was yet fresh in my memory.

I then bred my queens and drones from my best colonies, destroyihg my poorer queens, and this I have kept up ever since. I also obtained bees from different places, far and near, to improve my stock and to prevent in-and-in breeding, and as a further improvement of my stock, I sent an order for 12 Italian queens to Illinois. When, on the 9th of August, 1879, 11 arrived safe and sound—one having died on the way, my neighbors took 3, and I kept 8; but lost one in introducing. I only reared some 8 or 10 queens that fall, as I do not like to rear many queens from a colony until I have first tested it.

This brings us to the season of 1880, and this will bring out the special points I wish to notice in this article. The season was cold and windy, and bees done nothing but swarm until after July 20. I reared about 60 queens in the spring, about half of which were Italians. I aimed to have half of my drones Italians, but do not think I got half of them Italians—when I say Italians, I mean the Illinois stock. I call my stock the American bee—yes, "full-blooded American" stock. But out of all my young Italian queens, I do not believe I have one that mated with an Italian drone; whether any of the American queens mated with any of the Italians I do not know, as they do not breed up to a fixed type of rings, horns, etc. All the queens I got from Illinois I pronounced pure.

On the 20th of July I commenced hauling my bees to the river (I was then living about 3 miles on the plains); I hauled 62 on the Stanislaus, and left them in charge of a neighbor bee-keeper. They had little honey there; and 24 I hauled on Great San Joaquin, where I had charge of them myself; 12 were full-blooded Americans, 9 were young queens, the 3 others were 1 or 2 years old. My 3 Illinois queens (the other 4 having died, and another died this winter) and 8 daughters of the Illinois queens, and one I think was a grand-daughter, from an 1879 queen that I think was superseded last spring.

The following is the result of the year's operations of 24 colonies, as I copy from my memorandum book: No. 68, American queen, 150 lbs.; 69, Italian, none; 70, Illinois queen, 68 lbs.; 71, American, 106 lbs.; 72, American, 144 lbs.; 73, grand-daughter of Italian queen (nice honey) 225 lbs.; 74, Italian, 90 lbs.; 75, Italian, 118 lbs.; 76, Illinois queen (dead now), 87 lbs.; 77, American (condemned), 56 lbs.; 78, Italian of 1870 (but little gum), 160 lbs.; 79, American (very gummy), 168 lbs.; 80, American, 106 lbs.; 81, Italian queen of 1879, 106 lbs.; 82, Italian (no gum), 90 lbs.; 83, American (condemned), 33 lbs.; 84, American, 81 lbs.; 85, American queen of 1879, 135 lbs.; 86, American queen of 1878, 125 lbs.; 87, Italian queen of 1879, 183 lbs.; 88, Illinois queen, 22 lbs.; 89, American, 137 lbs.; 90, American, none; 91, Italian queen of 1879 (no gum), 120 lbs. Now, from the foregoing, you will see that 2 gathered no honey, being very weak and losing their queens, when I took them to the river; some of the others were quite weak, too. So, you see, I did not have my best colonies in this lot. The result summed up, makes over 2,500 lbs.; all comb honey.

The 11 Americans gave 1,241 lbs., an average of 112 lbs. per colony; the 3 with Illinois Italian queens gave 177, an average of 59; while their 7 daughters and grand-daughter gave 1,092, an average of 136; but a glance at the figures show that the grand-daughter has beat them all, she giving 225 lbs. of honey. She is also credited with getting the nicest honey.

A lot of bees I obtained on the Merced River, 5 years ago, were good honey gatherers, but desperate swarmers, which to me is a serious objection to any stock. Another, and the last lot, I got way up on the Sacramento, in 1877, had some good qualities, but not equal to mine. I never, before last fall, figured up so close the honey from each strain of bees, and I must confess the figures astonished me.

I never found fault with the Italian queens and bees from Illinois, and have no doubt that they are a good strain of bees. My neighbor that got 2 of those queens, claims that they are the best stock of bees he ever owned, and that about the only honey he obtained last fall was from his full-blood, and from the few queens he reared from them.

But what puzzles me is this: While the full-blood figured so low in honey, why did their daughters, mating with my improved drones, figure so high? The average of 59 lbs. for the full-bloods, against 112 for the Americans, shows the superiority of my strain. But why did none of the young Italian queens mate with the Italian drones? Were the American drones so much hardier, tougher, more active, and longer winged, so that the Italians could not keep up in the chase after the queen? or, what was the cause? Can any of your numerous readers solve the question?

Now you have my idea as to how to "catch the coming bee." A few of our leading bee-men (and they are by far too few), claim that the drone is "a mighty factor in the improvement of the honey bee," but I claim that he is "*the* mighty factor." I have long since been satisfied that the drone does more to determine the character of the progeny than the queen, and have acted accordingly, and have had no reason to regret my labors in that direction.

Ripon, Cal., March 2, 1881.

For the American Bee Journal.

Bee Notes from Mississippi.

OSCAR F. BLEDSOE.

It seems to me, as a looker on, that the results of last winter's cold should make "an end of controversy" as to the method of wintering bees in the North, and that good cellars should always command the preference, as the safest and most economical plan. It has been demonstrated that the only condition necessary to safe wintering out-of-doors in this locality is an ample quantity of stores, yet, even here, I am convinced that it would pay to put small colonies and nuclei, that could be easily moved in and out, in a cellar during the severest weather. Suppose, for instance, during the flow of honey from the bitter weed in August, I should make a large number of nuclei, in order to raise pure tested queens for shipment early the next season, it would certainly pay me to put the nuclei in a cellar during the coldest spells, and I shall try the plan.

The thought has occurred to me that it might be profitable for Northern bee-keepers, who are favorably situated, to ship bees South on the approach of cold weather, to be returned North the next season, say about May 1. The certainty of safely wintering, and the superior condition of the bees when returned, would more than counterbalance the expense incurred. Bees frequently commence to gather pollen here in January, and swarm from the last few days in March through April, so that bees shipped here from the North in October would safely winter beyond a peradventure, and could be returned full of brood, and perhaps in double or triple numbers. The additional honey gathered in the North when returned, on account of their uneasy condition, might pay all expenses. The express companies, in order to establish such a business, could afford to carry and re-carry on moderate terms. Such inter-communication between the North and South would thus not only be of pecuniary advantage, but would be pleasant socially, and tend to strengthen the National tie.

I noticed, during the last winter, that there is great advantage in wintering in a tall hive—cold affected my colonies in single-stored hives much more sensibly than in the double-story ones. As I use a shortened Langstroth frame, $11\frac{5}{8}$x$9\frac{1}{8}$ inches, when I put one story on another my hive is the equivalent of a box hive with frames. Towards the close of winter I found my colonies in 2-story hives even comparatively stronger than those confined to a single story. The bees would retreat upward as far as possible from the entrance, and, as spring approached, commenced to rear brood in the upper story, extending the brood-nest downward as the warmth of the weather increased.

I put a frame with cloth tacked on the bottom, and filled with cotton seed, on the top of each hive. This covering and distance from the entrance causes the top part of the hive to be the warmest part of it, and hence is preferred by the bees. Just here I will remark that in my judgment the full length Langstroth frame, while it is of the proper depth, is too long to combine the most advantages for apiaries, either North or South. I may be radical in this opinion but I believe that Doolittle is right in regard to the principles that should guide us in the selection of a frame, as he is on many other subjects connected with the apiary.

If the National Society should ever give its sanction to a standard frame, it would, I hope, not be the Langstroth. A small frame is preferable in these respects: 1. For 2-story hives—hence especially for warm countries like the South—and if 2-story hives are best for winter, then for the North also; 2. For obtaining straight combs; 3. in the use of comb foundation, sagging and breaking down not being so probable; 4. In making nuclei, raising queens and shipping; 5. In artificial swarming, taking frames of hatching brood from strong colonies to give to weaker ones, so much not being taken at once, etc.; 6. In handling the frames, extracting, etc., the weight not being so great. I make these remarks, notwithstanding the practice and authority the other way, as a candid doubter, for considering the great variety of frames used, and the injury resulting therefrom, to the general interests of bee-culture, it becomes us all to express our opinions in order to a "survival of the fittest."

Grenada, Miss., June 4, 1881.

For the American Bee Journal.

Bee-Keeping in Ireland.

WM. CARR.

You will see by the *British Bee Journal*, we did a great work for Irish bee-keeping last autumn.

The Baroness Burdett Coutts, President of the British Bee-Keepers' Association, and whose name here is a household word for everything that is good, the Duchess of Marlborough, Canon Bagot and others that take an interest in Ireland, persuaded the Council of the British Bee-Keepers' Association to send their bee-tent on a tour all through Ireland, to instruct the people in the improved way of bee-keeping. So the Council persuaded me to go and lecture to the people, whilst Mr. Abbott, the editor of the *British Bee Journal*, was manipulating the bees in the tent. We commenced at the Royal Irish Agricultural Show, at Clonmel, in the south of Ireland, on August 11, 12, and 13th. We showed and explained to the people how to do every operation with bees.

At Newtownhards, north of Ireland, at the great agricultural exhibition on September 2, we greatly astonished the natives, by driving a strong stock of their own bees, and captured the queen which we tied on our cap, then placed it on the ground and shook all the driven bees on to it; they clustered round the queen like a natural swarm; we then placed the cap on our head, and walked all over the show-ground amongst thousands of people with about 20,000 bees on our head and face, and nobody received a sting. This was Wildman's feat, 108 years before (see page 12 of my pamphlet, a copy of which I sent for your acceptance, on December 21, 1880, and hope you received it safely, and that you were pleased with it. I had only a few printed for my friends).

Newton Heath, England.

[We noticed and returned thanks for Mr. Carr's interesting pamphlet, in the BEE JOURNAL of January 19, on page 20. —ED.]

For the American Bee Journal.

Burying Bees in Clamps.

C. J. ROBINSON.

Ever since 1860 I have wintered my small colonies under ground, in clamps, so-called. This sort of winter repository was first devised by a scientific bee-keeper, in Germany, and promulgated in this country by the lamented Samuel Wagner.

The clamp mode is set forth in "Langstroth's Hive and Honey Bee." I do not follow, strictly, all the details of the plan as specified in said book. I select a dry, mellow spot of earth, dig a trench somewhat wider than a hive will cover, and some 18 inches deep. Fill the trench about full of dry straw. laid in loosely; put scantling or sticks across, over the pit, and place the hives thereon in a row. Arrange the interior of each hive so as to give ventilation, as may be required, taking caution against intrusion by mice. Spread dry straw along on each side of the row of hives, completely covering them, and the earth that forms the bottom of the pit. Now place boards, so as to form a box over the row, but in such a manner as to form a chamber, or air space, of 8 or 10 inches all around the top and both sides, with trench: all of which is fully filled with the straw, not packed. Then put another coat of straw over the boards, and over that a coat of earth—like potatoes are buried in a pit.

The points in the case are: the straw absorbs the moisture of the earth and keeps the hives dry; the vacant space all around the hives allows dry air to circulate all through the cave and hives; this is one of the essential conditions; a freezing atmosphere is excluded, and is another condition in any plan of bee salvation. None of the creeds of packing above ground are rational, and the end thereof is sure destruction, unless the bees are equal to saving themselves, anyhow.

On Nov. 14 I put 4 colonies in a clamp, one of which was a small after-swarm that my neighbor had in a box hive only about half filled with comb. He said that it could not be wintered, and gave me that, and another not much stronger, to prove to him the benefits of a clamp repository. On the 15th of March I took the 4 colonies out of the clamp. On opening the smallest I found the little colony as lively as when first put in, and now they are doing finely. All of the 4 were in the best condition, and have remained thus.

I have put my small colonies in clamps each year, except 1879, when I kept none. I do not remember of losing a colony in a clamp. In my first attempts I kept ventilation in view—I feared to shut off a free circulation of air, and I placed a tube (gun barrel) in the lower end of the pit, and a chimney in the top. The free admission of atmospheric air defeats all of the advantages to be gained by burying. Indeed, it is the long terms of cold air that does the harm under all conditions, rousing the bees to activity in a sea of oxygen. All should know that the honey bees may, under certain conditions, remain semi-torpid for a long time.

The Baron of Berlepsch experimented to test a theory by putting 3 queens in an ice house during 36 hours. He said they were thoroughly chilled—stiff with the cold, and white with frost. When placed in the rays of the morning sun they remained motionless for a long time, only one revived, and she only laid drone eggs thereafter.

In a well constructed clamp, with the atmosphere entirely excluded during severe cold, the bees remain quite torpid, and very quiet, in a low, even temperature, needing scarcely any vital oxygen, and consuming but little honey; hence there is no occasion for a flight for evacuation. Large clusters of bees do not afford the best conditions under special protection, for too much heat is generated in the center, and a supply of oxygen must be present, defeating quietude. A 2-pound colony is more manageable and can be wintered more safely than one larger. Large colonies, while being wintered above ground (I abhor chaff packing) require ample supplies of atmospheric air, with a plentitude of honey for combustion, wearing out the bees, and "packing" their alimentary canal until it gives way.

The Author of Nature, who gave to bees the laws of instinct and their propensities, has given a lesson for man to study, and when he has learned their true history, he has learned all that can be known on the subject.

Richford, N. Y.

For the American Bee Journal.

The Cause of Dysentery.

J. O. SHEARMAN.

I notice the difference of opinion among experienced apiarists on the cause of bee-dysentery, and wonder why we cannot come nearer to an agreement.

One fact is noticeable, that the disease is more general in a long and severe winter; and this should be the basis of our investigation.

Bees have been known to come out bright and healthy after a steady confinement of 4 months. Henry Bird's bees, 2 years ago, were put in a dry, cool and quiet cellar, in November, and were taken out the following April, without loss, and all were healthy and strong, and the honey in good condition.

As to "bacteria," why does not some scientific "bee-ist" give us the proof, if "that is what's the matter?" Assertions do not satisfy. The proof of the pudding is in chewing the string, Bingham says—but Mr. Heddon has given us that string to chew for 2 years, but only the end of it that didn't touch the pudding or bag. Did not "bacteria" flourish as well last year as this? If not, why not? I do not wish to attack any one's pet theory, but Mr. H. says, "let us reason together." Yes; let us chew the whole string, hoping to use the pudding. I agree with him that the chief cause of bee-dysentery is the condition of the honey, and I will add, at the time of being eaten. This may seem superfluous; but I have experimented with honey for 2 years, off and on, and proved to my satisfaction that honey changes in its character in different seasons. In a continued cold and damp season, it turns thin; my theory is that bees can use thin honey if they fly frequently. They can endure long confinement if the honey is thick and in good condition. I believe this is generally admitted.

The long cold weather thins the honey; the breath of the long-confined bees, also helps this on, and when warm weather begins (*i. e*, a thaw), it sours the thin honey, and then comes the worst form of dysentery. The second confinement (after a warm spell), is more disastrous than the first.

Now for the whole string, which I hope Mr. H. will be the first to experiment upon with his accustomed ability.

Two years ago, I put a box of sealed honey in a cupboard, in a room with no fire, but adjoining a room having a stove, in which was a fire in the daytime, but none during the night; the temperature of the room changed twice in 24 hours. The box of honey was of the button-willow, and oozed through the caps a little in the fall; in the spring, it oozed enough to fill the box and run over, with a frothy appearance. The honey was sour, and soda would cause it to foam. I noticed the same appearance in some honey in brood combs, taken out of a depopulated hive this spring.

Again: all my bees wintered well, and were bright and healthy, except 2, in 1879-80. Those two were very strong hybrid colonies, which gave a late swarm; the brood chamber of the old colony was full of brood at the time, and the swarm filled its own hive (after I gave it combs), so that both had hives filled with late honey. I packed them on summer stands, the same as the rest. The old colony had the dysentery badly early in February, and when a thaw came in the middle of February, so many had died inside that the balance were not worth saving. The swarm had the dysentery when the the thaw came (in Feb., 1880), so I cleaned them out and found nearly half dead. I reserved the combs having sealed honey, and hung them up by a stove pipe, till they had done sweating (3 or 4 days); when fine weather came, for a half hour or so, I cleaned the diseased colony again, and exchanged combs, giving them the solid warm honey, and contracted the brood chamber to 4 combs. When the next thaw came they appeared clean, had begun breeding, and did well with some help in spring.

Last spring (1881), I had plenty of dysentery to experiment with, but the weather was not fit to open a hive till the spring opened, and then I exchanged some combs in weak and sickly colonies, with beneficial effect.

Do not these instances give a key to the cause, and justify further experiments in the same direction? I ask the co-operation of the fraternity in this line, and an impartial judgment, hoping that the question of wintering bees will be solved thereby.

New Richmond, Mich.

For the American Bee Journal.

Bees and Honey in Florida.

W. S. HART.

Seated on a broad veranda, with the cool and balmy breezes from the piney woods and the broad river fanning your brow, the long lines of towering orange trees, in their pride of gold, green and white, shading the nicely painted, busy homes of the apiarist's pets, before your eyes; the hum of thousands of happy bees, gathering the sweet nectar from the sea of bloom nestling among the beautiful green of the orange leaves, and the songs of the birds, many of which are warbling their sweet "good-bye" to their sunny winter home, in your ears; the air, laden with the richest of perfumes, in your nostrils, and a basket of freshly plucked fruit at your elbow, if you are a lover of nature (which all good bee-men must be) I think you would find yourself as near heaven as it is often man's lot to get.

To the apiarist all of this is to result in barrels or crates of delicious honey; to the orange grower, in checks on New York, and a good many little surprises, and pleasures, and comforts for wife and little ones, coming in return for great piles of crated fruit to be sent to market in the fall.

The realization of a part of this happy picture is still in the future to the writer, as my grove is still young, and now blooming for the first time, but a short time only is wanted to finish it out. This morning I picked as high as 400 buds and blossoms from one tree which I set out 21 months ago, and which is now but 19 months old from the bud. I have several others of the same age with nearly as many upon them. I pick quite a large number of the buds off to prevent the tree from bearing too heavy a crop the first year. One of my neighbors has a grove, set out 6 years ago next August, which has trees in it that bore 800 oranges each last year, and, judging from the bloom now on the trees, they will greatly exceed that number this. This orange business never promised better than it does this year, and the prospects for the future prosperity of Southern Florida never looked so bright as they do to-day.

My bees have been gathering honey rapidly for weeks past, and are swarming. I had 36 colonies to commence the season with, an extractor, a comb foundation machine, a 113 gallon evaporator, and a 20x20 honey house, so I am well prepared to take advantage of the coming crop. Last year I started with 14 colonies, increased to 40, and extracted 1,900 lbs. of honey, which brought in the Boston market 15 to 20 cts. more per gallon than any other honey there at that time, and this without a pound of foundation. This year I expect to increase to 100 colonies, and extract 7,500 lbs. of honey. I will report my success next November or December.

I am constantly receiving letters of inquiry in regard to this State as a field for bee-keeping, and many have no stamps inclosed for reply. As I have no land or bees for sale, I cannot afford to find stationery, time and stamps to write on other people's business; so if any reader wishes further information, they will please enclose 2 stamps, and I shall be pleased to give it.

New Smyrna, Fla.

For the American Bee Journal.

Making Comb Foundation.

SMITH & SMITH.

Beyond dispute, comb foundation has become a necessary article, and it is unnecessary to state the advantages in the use of it. There is room, however, for improvement in the way of making it. We will say a few words on that subject. Every manufacturer of comb foundation knows the amount of time and patience required in stopping the machine after starting the sheet of wax, and using a quill or brad-awl to pick up the end of the sheet, which is sure to adhere to the rolls, especially if the wax or the mill are too warm or too cold, etc. All these things are inclined to make the end of the sheet stick so much the tighter; in short, we find it takes about ¼ of the time in stopping and picking up the end, ready to put the sticks on, to hold the sheet firm. This has been one of the disadvantages all have to contend with. The past season we adopted a plan that entirely overcomes the adhering. After starting, the sheet will go through; all we have to do is place sticks on the end. No time is lost in picking it up, and there is no risk of injuring the dies by the use of a brad-awl, etc. It saves time, and is in no way injurious to the foundation.

Tennessee for Bee-keeping.

A. H. BRADFORD.

Here in the South I have never known a colony of bees to require winter protection, and I have never known a hive to freeze out, and not many starve. Our hives stand out and take all sorts of weather from year to year, and very often when winter has fully set in and the earth is covered with snow, here in West Tennessee 2 or 3 bright sunny days will warm them up so that they will stir out and fly around full of life, cleaning out their hive and hunting for something to gather up outside; and when the little crocus peeps out through the frosty atmosphere of early spring, the little worker is the first to notice it, and every flower is soon covered with the hungry little fellows, striving for the first sip of delicious nectar. Every bee fancier should have a good plat of this sweet little harbinger of spring for his bees, if nothing else. Soon after this, the aulonia, that prince of shade trees, with its wide spreading branches and long spikes of fragrant purple flowers, furnishes another feast of good things. The maple, in its varieties, and the willow of the woods, come in time to save the weak colonies, and I have hardly ever had to feed them in winter or spring.

☞ The Northwestern Bee-Keepers' Association will meet in Chicago on Tuesday and Wednesday, Oct. 11 and 12. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting Conventions ever held in the United States.

C. C. MILLER, M. D., *Pres.*

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., JUNE 15, 1881.

The Honey Prospects.

From many quarters we are receiving very gratifying news regarding the incoming honey crop. Of course, to the north of us the nectar flow has hardly commenced, but everywhere the prospect is encouraging for a good yield proportionate to the bees surviving. Dr. C. C. Miller, of McHenry Co., Ill., says: "Bees are building up finely; prospects for an excellent season." C. F. Muth, Ohio, writes June 8: "Locust blossoms yielded more than ever before to the best of my knowledge. I took off more than 1,000 lbs. of locust honey 10 days ago. Bees are now filling up slowly with clover honey. We want warm, dry weather for the next 2 or 3 weeks to produce a large crop." Osman McCarthy, of Pennsylvania, writes enthusiastically regarding prospects in that State; John Boerstler, Central Illinois, "forced the season" with 20 natural swarms in May and 10 in early June; while W. S. Hart, Florida, becomes poetical in his contemplations. W. P. & Frank Coffinberry, Arkansas, write that the prospect for a heavy spring yield is discouraging, on account of heavy rains; but all the signs for a large fall harvest (which is the main dependence there) are propitious. Here, the hot weather scorched white clover to some extent, but sweet (melilot) clover was never more promising.

◆

☞ The editor of the *Nebraska Farmer* says: "Our first swarm came out on May 23d. It was very large. How is that for Nebraska, in a late season, too? Our former estimate of the loss of bees in this State, by the severe winter, was much too low, as later reports show. We now think that 4-5 in all the State perished."

◆

☞ We are pleased to learn, by the Red Oak, Iowa, *Express*, that Mr. E. D. Godfrey, who is a progressive and successfull apiarist, has been appointed a special agent of the Interior Department. We congratulate him on this "*progressive* step."

◆

☞ Mr. D. S. Given, Hoopeston, Ill., made us a very pleasant visit on the 10th inst. He reports the prospect for a good honey yield as very encouraging. We regret to be obliged to announce that Mr. Given is suffering from ill health, which he attributes to over-work.

◆

The Nebraska Convention.—The *Nebraska Farmer* says:

At the last meeting of the Nebraska State Bee-Keepers' Association, Ashland was chosen as the place to hold the next meeting; that place seeming to represent nearly the centre of the bee-keeping population of the State. It is to be hoped the bee-keepers of that place will take hold of the matter and make the necessary arrangements for the meeting; without doubt it will be the largest meeting the Association ever held. Our last meeting in the city of Plattsmouth was an honor to the Association. Let us not "put our hands to the plow and look back."

Present and Future of the Weekly.

The opinions of our subscribers concerning the Weekly have approved it so unanimously that it has been quite surprising. This shows how much of a necessity it had become. With the exception of those who incidentally remarked that they preferred the old size and form, the following are the only ones who have written disapproving the size of the JOURNAL. These we have retained to see how many we could gather up and publish all at once. And even these only disapprove the shape of the pages, while they all, without exception, desire its weekly visits:

I like the Weekly. When first published I was not favorably impressed with it; but it is just as it should be. I did not realize that it could get such communications as it does. Some of the monthlies have to borrow a good deal from the agricultural and other bee papers. This is a little humiliating to the editors, I should think. Best regards. F. A. SNELL.

I was slow to see the propriety of the change, but the weekly visits of the Journal have convinced me. It has been a great satisfaction to me to get reports every week of the effects of the extraordinary winter upon the bees, and the different modes of wintering, in all the different parts of the country.
LEROY WHITFORD.

Being a subscriber of 11 years' standing, and an occasional contributor to the Bee Journal, I hail, with pleasure, the advent of this cherished publication as a Weekly. But at the same time it is with great sorrow that I see the Journal changed from its life-long, convenient form. I should prefer to have had the Journal remain a Monthly, even at a higher price, rather than have its form changed. But I might as well think of getting along without my daily meals, as without the Bee Journal.
WM. MUTH-RASMUSSEN.

I am very sorry that you have changed the size of the Journal, as I considered the American Bee Journal for 1880 was perfection in size and form, paper and printing. The present size of the Journal is inconvenient to read, and not fit to leave on the drawing-room table, and when bound it will make such a cumbersome book it will have to be thrown upon the bottom shelf of the bookcase, out of sight, whereas the old size was handsome enough to leave on any table, and when bound made a beautiful book, and was placed on the most conspicuous shelf in the bookcase. I have all the 16 volumes complete, and I often show them to my numerous bee-keeping friends, and by that means I have induced many to become subscribers of the good old American Bee Journal. I do hope you will change the size back again to the old form. I have made these remarks because I am so anxious for the continued success of the Bee Journal. WM. CARR.

I approve the change from a Monthly to a Weekly, but record me as *unalterably opposed* to its present size and shape. It is inconvenient for reading and preservation. I am always glad to receive the Bee Journal, but greatly desire it in its old form and shape. My interest and pride in the Journal impel me thus to write.... J. W. HUDSON, M. D.

The Weekly Bee Journal supplies a want long felt by bee-keepers. Mr. Samuel Wagner, before his death, contemplated a semi-monthly, but nothing less than a Weekly would now give satisfaction. Let me suggest that the *shape* is not the best for preservation. It looks too much like the ordinary newspaper, and will often share its fate. I take it for granted that no change of form can be made for this year—but would it not be well now to announce that another year the shape of the Bee Journal will be such as to obviate all objections. L. L. LANGSTROTH.

I am well pleased with the change of the Bee Journal to a Weekly, except the form, which is not so convenient for keeping for future reference. I would prefer to pay more and get a more convenient size. The amount we pay for the Journal is nothing compared with its real worth, and to lose a copy is like losing a link out of a trace chain on a hard pull. My Journals never go to the waste basket, like other papers, but are carefully preserved for future reference. One of these old Journals saved me a colony of bees, and that colony gave me $10 in surplus that season—5 years' subscription from a single article in one back number. When it will justify, I would ask the publisher to give us a more convenient form, and we will pay for it. If the cost is greater, the benefit derived and the time saved will overbalance that. JOHN M. DAVIS.

We are very glad to have these friendly criticisms, and have given them due consideration, and will, after the expiration of the present year, greatly enlarge the Weekly BEE JOURNAL.

This year, it was an *experiment*, and we desired to give as much matter as possible, and at the same time not to make it so expensive as to cripple its career. Now, as it has received such marked approval and assurances of continued patronage, we shall endeavor to satisfy all, as to its size and shape, for another year.

We propose next year to drop off one column from the page, leaving 3, and reduce the length about 2 inches, making the size not only unobjectionable, but a very handsome and attractive one, and also *double* the number of pages, and continue it weekly, at the same price as now—$2 a year.

Those who have purchased Binders for this year, will then have a nice volume already bound, and convenient for reference.

We shall also bind the Weekly numbers every month, and issue it in Monthly parts, of from 68 to 84 pages, according to the number of Wednesdays in each month, at the same price as now, and thus accommodate our large list of foreign subscribers, and others in America who may prefer to have it in that way.

The following indorsements are also received:

I am much pleased with the Weekly Bee Journal. It keeps its readers up with the times. HENRY CRIST.

I like the change to the Weekly very much—it was too long to wait for a Monthly. J. C. PENNINGTON.

I consider the Bee Journal so full of practical information that no one should be without it who has the care of bees.
CHAS. SMITH.

I find myself looking for the Bee Journal with much more interest since it became a Weekly. E. E. HASTY.

The Weekly is simply "immense." I have received all the numbers so far.
J. H. BALDWIN.

I am well pleased with the Weekly Bee Journal. I like its general appearance as well as its contents. It ought to meet with much success.
HENRY ALLEY.

I am delighted with the neatness and richness of the Weekly Bee Journal. It is very comprehensive and interesting and I wish it great success.
(Rev.) A. GUNTHER.

Allow me to congratulate you on the handsome appearance of the Journal. Success to it and its proprietor.
JOHN W. LOCKIN, Ed. Wis. Farmer.

The American Bee Journal makes its Weekly visits and is just what is wanted. Success to its enterprising editor. ANTHONY OPP.

I find the Journal as interesting as my husband does and we both like the Weekly very much and wish you all success. MRS. W. L. PORTER.

We admire the change of the Bee Journal to a Weekly very much indeed.
FLOURNOY & FOSTER.

I am well pleased with the Weekly. Its publication is a great stride in scientific apiculture. Long live the Bee Journal and its genial editor.
G. W. ASHBY.

I like the Bee Journal very much and would not be without it for 8 times its price. ERNST ZABEL.

I think the Bee Journal the best in the world, and it is better and better every week. ISAAC F. PLUMMER.

I like the change from a Monthly to a Weekly very much. H. B. LISK.

I was agreeably surprised with the Bee Journal coming Weekly. I would not do without it for 5 times its price.
GEO. A. TEMPLE.

The Weekly Journal is not only progressive and fully up with the times but it is decidedly excellent.
H. S. VAN ANGLEN.

Success to the Weekly Journal. We are all well pleased with the Bee Journal except the form. We think the old form much preferable.
S. L. DORSEY.

I am much pleased with the Bee Journal and am glad that it will be a weekly visitor instead of a monthly. This will be appreciated by all its patrons.
J. M. WEEDE.

I am well pleased with the change of the Bee Journal from Monthly to Weekly. May it ever prosper.
M. B. TERRASS.

AMONG OUR EXCHANGES.

INDIANA FARMER.

Putting on Surplus Boxes.—Putting on surplus boxes like many other things connected with work in the bee-yard, is dependent on conditions and circumstances. The experienced eye can easily tell just when they should go on. The cells unoccupied with brood will be filled with honey, and the bees will have commenced building little patches of comb in all the unoccupied space, lengthening out the cells next the top bars, etc. This usually commences at the yield of white clover, and in many localities they will need the boxes ere this. They should not have too much room given them at the start; put on a few at first, and as the bees get started in, give them more room.

Dividing Bees.—Dividing bees, when properly done, is a much better plan to increase than to allow them to swarm naturally. But improperly done, has been the ruination of many an apiary, for it seems almost impossible to convince some people that success depends on the strength of the colonies, and not numbers. The better plan is to wait until the bees are making preparations to cast a swarm, and then they can be divided with benefit. When you find they are making ready, or have queen cells capped, then divide. Take a frame of honey, bees, brood, and the queen, hang in an empty hive, fill up with frames of comb or foundation. Move the old hive to a new location, placing the new hive containing the queen on the old stand, and the work is done. Nearly all of the old bees and those in the fields at work will return to the old stand, which now contains the new hive, and makes quite a good colony. The young hatching bees will soon fill up the old hive. The empty place from which you removed the frame of brood and the queen, should be filled with a frame of comb or foundation; for if an empty frame be hung in place, the bees will fill it with drone comb. This work should be done in the middle of the day when the larger part of the bees are in the fields. Nothing can be done for 7 or 8 days with the old hive. By that time they will have capped the queen cells: if the cells were capped at the time of dividing, they will need looking after sooner than this. The queen will hatch in 15 days from egg. When the young queens are ready to hatch, all queen cells should be removed but one;

those removed can be used in nuclei previously prepared, or be given to colonies divided a few days in advance of the hatching queens. If no other colonies are ready to divide, make nuclei by taking 2 or 3 frames of brood and bees from prosperous colonies, and to give them the hatching cells. The nuclei should be made the day previous, as they will then more readily accept the cells. Young queens will hatch and become fertile while occupying these nucleus colonies, and can then be built up from other colonies, or be given to divided swarms, keeping the old colony to gather and at work until the young queens are ready.

Starters in Surplus Boxes.—Bees commence work much more readily in surplus boxes, when provided with starters of comb or foundation. All clean white comb should be carefully saved for this purpose. The larger the starter, the better, but even a very small piece is of great benefit. Where pieces of comb are used, it can quickly be fastened in the box or section, by holding it over a candle or lamp until the edge is melted, then set it in place, and it will stick; for foundation, this will not work so well. We use the following, which is very simple and effectual: Take a tin dish, an oyster can with one side cut out does admirably, fill part full of beeswax and rosin of equal parts. Fix the dish over a lamp, so as to keep the mixture at the right temperature, which you will soon learn. If too hot, it will melt the edge of the foundation. If not sufficiently heated, it will cool before you can get the starter in place, and will not stick. Have your starters all cut the right size. Take the section in the left hand, top down, dip one edge of the starter in the wax, and set in place, and it will stick. With a little practice you will be able to do this very rapidly.

Building Combs in the Open Air.—Mr. Frank Cheshire, in the *London Journal of Horticulture*, says:

Mr. Benton apologizes for *Apis dorsata* in these words—"We must not be prejudiced against the bees because they build their combs in the open air. Our yellow bee does the same thing in tropical countries, and when unable to find a suitable place to settle." I am glad to be able to corroborate Mr. Benton by an instance of this, the evidence of which still exists.

In the beginning of September, 1874, the Hon. and Rev. H. Bligh discovered a colony of *Apis mellifica* (our common bee) in a privet bush near Henley. That the insects had been at least some weeks established was certain, for not only had a large quantity of worker comb been built, but in a good patch of drone comb the cells were stained by the exuviæ of the males that had already left them, while a second set of larvæ were far advanced. Since 25 days are occupied in maturing a drone from the egg, and 8 or 9 more would be required to bring the succeeding larvæ to the condition in which they were found, we have but 8 days left of our hypothetical 6 weeks for the bees to build much worker comb and then make preparation for colonizing by turning their attention to the production of drones.

The handy work of this *al fresco* family was secured by cutting through the stems of privet and removing the combs bodily, which was in no way difficult, as the whole of them had been tied together by interlacing twigs. I was honored by having this specimen presented to me by the aforesaid gentleman who discovered it, and a few times since it has been used at lectures or lent to grace collections of curiosities, and has, in consequence, suffered after the fashion of the Temple Bar Memorial—going in parts to the cabinet of the curious, or rather, perhaps, suffering under the thumb of the destructive; but enough remains to bear testimony to Mr. Benton's statement. The leaves appear to have been carved from the petiole by the clever bees, thus securing room for their combs, and many points to which to fasten them, so that the wind would not disturb their arrangements.

SELECTIONS FROM OUR LETTER BOX

Bees Doing Well.—About ⅔ of the bees in this section are dead; some have lost all. I have 19, in good condition, left out of 50 last fall; wintered in the cellar. Had I followed more closely the instructions given in the JOURNAL from time to time, I might have fared better, I think. Still I feel very thankful for so many to start with, this season, and am hopeful for the future. JOHN MEADER.

Delaware, Iowa, June 2, 1881.

Melilot Clover.—In Cook's Manual, page 230, speaking of melilot clovers, the author remarks "another disagreeable fact; they have no value except for honey." I have had 5 acres of melilot pasture for 7 or 8 years, and I give it as my opinion from experience, that 1 acre of melilot clover will furnish as much pasturage as 2 of any other grasses in common cultivation. Stock will eat it, after becoming used to it, as freely as blue grass or timothy, and its fatting qualities, from a casual observation, I judge to be equal to any.

A. SALISBURY.

Camargo, Ill., June 6, 1881.

Foul Brood.—Allow me to suggest that the recent articles on foul brood in the BEE JOURNAL should not pass without some editorial comment. The difference between chilled brood and foul brood is too well known to most of the older bee-keepers to need any explanation, but many of the beginners may be frightened into the belief that they have foul brood on their hands, by reading such articles from men who evidently never saw a case of genuine foul brood. I have lived and kept bees for 10 years, in one of the worst foul brood infested districts of this State, and know the disease from sad experience; have also seen chilled brood, and do not see how one familiar with both cases can mistake one for the other. WM. MUTH-RASMUSSEN.

Independence, Cal., May 20, 1881.

[The above subject has been quite ably discussed in the BEE JOURNAL, and our columns are still open to receive any new ideas which may be advanced *pro et con*. Perhaps in the multiplicity of ideas the correct solution of the problem may finally be reached, and its cause, prevention and cure be thoroughly understood by every apiarist.—ED.]

"The Harvest is Great, but the Laborers are Few."—The harvest is fast approaching; the locust trees are in full bloom, so white are they that they present the appearance of snow, and rival that of basswood in richness and nectar. White clover is just coming, and promises to be abundant; but alas, the reapers are few, although the loss in this locality is not so bad as reported in some others, but it is bad enough. As near as I am able to judge from reports, nearly 50 per cent. of the bees in this locality are dead, and a great many of those living are very weak. It matters little how good the season may be, but little surplus will be the rule in this locality—Southwestern Pennsylvania—and the prospect is promising now. Last fall I had 16 good colonies (6 Italians and 10 blacks), and now I have 2 in moderately good condition. Five of the Italians were packed in dry hay and leaves, on the summer stands. I had 4 colonies in the cellar, one Italian and 3 blacks, the remainder out-of-doors, unprotected. By the last of February all that were out, unprotected, and all that were in the cellar, except the Italian, were dead; some seemed to be affected with dysentery, while others did not. These packed as above described, came through the winter all right; all but 2 of them lost their queens before the last of April; had it not been for this I would have had all my Italians yet. However, I saved 2 of the queenless colonies; they reared some 4 or 5 queens each, and just before they hatched I divided them, making 4 nuclei out of the 2; each nuclei now has a queen. I examined them yesterday and found one of the queens laying; the others are fertilized, I think, but are not yet laying. Bees in this locality are generally wintered on the summer stands, unprotected; I am the only one that has tried packing and cellar wintering. Some have lost all, or nearly so, while others came through all right. One neighbor had about 30 colonies and now has 5; 2 others had 20, now one has none, the other 3 or 4; another one had 2 colonies, both came through all right, and are the stronest I have seen this season. Yesterday a swarm issued from one of them; they are in box hives. Permit me to say, I am highly pleased with the Weekly. It is just what every bee-keeper needs.

OSMAN McCARTHY.

Zollarsville, Pa., May 30, 1881.

Glucose as a Honey Plant.—I do not believe a word that "Hix" says about glucose being a good honey plant (see page 154 of the BEE JOURNAL). I guess he is an own cousin to Petroleum V. Nasby, and the next thing we expect to hear of him is that he will be wanting to start a post office in some glucose factory, so that orders for glucose seed may be received with the least possible delay. Let us see about the glucose honey plant. Our friend, A. I. Root, has always been a strong advocate for the plant, and advertises the seed (grape sugar) for sale at 5 cents per lb. Well, he had 300 colonies of bees last fall. He sold a few and doubled the remainder down to 140, just before the cold weather in November. On April 22, he says in *Gleanings*, "we have but 12 colonies left, 5 of which will probably pull through without help." Either that neighborhood was overstocked, or else glucose is a very poor honey plant; and it is not safe to try and winter bees that have worked on glucose. But I am too fast; in the May number of *Gleanings* he says: "it was raising queens that did it." Well, if it costs the loss of 300 colonies of bees to rear dollar queens, I believe I will not try it. Have the colonies where these queens have been introduced fared any better? If not, will it not pay us to improve our bees till they can stand it to be wintered on the summer stands any winter. I claim this can be done with the use of chaff hives, and until this *is* done, we shall not make bee-keeping a success. We cannot stand such fearful losses as we have had during the past winter and make bee-keeping pay. I wintered on the summer stands, the past winter, without the loss of a single colony, and have no more fear of wintering out-of-doors than I would in the best cellar in the world. I know I have made a great improvement in my bees, and if you wish an article on improvement and how it can be done, I will write one soon, giving my experience and success. L. R. JACKSON.

Fairland, Ind., June 4, 1881.

[Give us the article, by all means. We want all the light there is, and if Mr. Jackson can tell us how he has improved his bees we shall all thank him for the light.—ED.]

A Cellar Best for Wintering.—I saved 5 colonies of bees out of about 30, which I think is tolerably well, considering that so many have lost all. I wintered out-of-doors. Had my bees been put in a good cellar I think that I should have saved more than double that number. I have wintered bees in a cellar for 6 seasons, but on account of having moved I have no cellar now. My experience teaches me that a cellar kept at a temperature that will keep the bees quiet is the place to winter bees. All the protection my bees had was straw in the caps. ISAAC SHARP.

Waveland, Ind., June 7, 1881.

Gathering Honey.—I had 20 swarms in May, and 10 in June. The bees are working finely, and have gathered considerable honey. JOHN BOERSTLER.

Gilead, Ill., June 7, 1881.

Prospects Flattering.—My bees are doing finely. They came through the winter with the loss of one out of 11 colonies. All were packed in chaff on the summer stands. The one lost lacked honey. Good honey, plenty of bees, and chaff packing are the essentials in wintering bees here. The prospects for an abundant honey yield are flattering. I cannot do without the BEE JOURNAL. J. W. CARTER.

Pleasantdale, W. Va., June 4, 1881.

Honey from the Locusts.—I saved 68 out of the 80 colonies I put into winter quarters. These outstrip anything I ever beheld for gathering honey from locusts; during their blooming the bees filled every available cell with honey, clear as crystal and of excellent flavor. I think we shall have a nice honey crop this year; as about ½ of the bees are dead, if there is anything in having "an undivided field" for our bees, we should have an excellent crop of honey. White clover is opening nicely.

JAMES RAPP.

Mullberry, O., June 4, 1881.

Wintering in Cellar.—Father has kept bees for several years. He winters in a cellar, and would winter in no other way in this latitude. He says he thinks that it is just as easy to winter bees successfully as it is to winter cattle and sheep. He put 73 colonies into the cellar about Dec. 1, and took them out April 21, all alive but 3. One starved, and the other 2 smothered from the entrance being closed. A few colonies became weak in the spring, but by doubling them up they are getting strong, for the honey harvest. Most of the colonies are very strong, with quite a number of drones flying. Not desiring any more bees than he can take care of himself, father restrains them from swarming as much as he can. Some colonies which did not swarm last year averaged from 75 to 100 lbs. of comb honey, while those that did swarm averaged from 50 to 60 lbs., besides some extracted honey. He keeps nothing but hybrids, and uses the Langstroth hive. I will give his method of wintering bees and preventing robbing, in some future number of the JOURNAL, if wanted. Being a carpenter, he makes all his own hives and surplus boxes, and also rears his own queens, so he ought to succeed in the business. We read the BEE JOURNAL, and do not see how we could get along without it. Pa takes it out among his pets and reads it through; I do not know which likes it the better, he or his pets; they will light upon it sometimes as if they were trying to read it, too.

CARRIE M. CHARLES.

Cedar Falls, Iowa, May 27, 1881.

Locust Honey.—The locust bloom yielded more honey this season than I ever before knew it to do. I obtained more than 1,000 lbs. of it nearly 2 weeks ago. Bees are now filling up their hives slowly with white clover honey. They gathered more yesterday than all last week. We need warm weather for 2 or 3 weeks to yield a honey crop.

C. F. MUTH.

Cincinnati, O., June 8, 1881.

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		..$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00..	2 75
Bee-Keepers' Magazine (A.J.King)..	3 00..	2 60
Bee-Keepers' Exchange (J.H.Nellis).	2 75..	2 50
The 4 above-named papers.........	4 75..	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50..	2 35
Bee-Keepers' Guide (A.G.Hill).......	2 50..	2 35
Kansas Bee-Keeper............	2 25..	2 50
The 6 above-named papers.........	5 75..	5 00
Prof. Cook's Manual (bound in cloth)	3 25..	3 00
Bee-Culture (T.G.Newman)...........	2 40..	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept.— —National, at Lexington, Ky.
--Kentucky State, at Louisville, Ky.
Oct. 11, 12—Northern Michigan, at Maple Rapids.
12 –Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Coopersville, Sec.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

CONVENTION NOTES

Read before N. W. Wis. and E. Minn. Convention.

Wintering Bees Successfully.

WM. LOSSING.

The wintering of bees seems to be the all-important question, and how they can be wintered the most successfully. My experience teaches me that each colony should contain a young, prolific queen—Italians preferred. If you have any queens more than 2 years old, remove them about the 1st of September, and introduce young queens in their places, which will furnish plenty of young bees to stand the winter. Each colony should have not less than 30 lbs. of ripe honey at the commencement of winter. Cut a half-inch hole through the center of each comb for the bees to pass through. From November 1st to 15th, remove all the honey-boards and in their places spread quilts made of 2 thicknesses of cotton flannel. Now your bees are ready for the cellar, which should be put in order.

To prepare the cellar, remove all pickles, vinegar, soap barrels, etc., then lay a tier of dry bricks on the bottom to take up all the moisture; now build racks to hold your hives, so that you can examine any one hive without disturbing the rest. Last, but not least, have two 4-inch pipes, one to run from the cellar to the chimney, or stovepipe, the other to run from the cellar to the outside. Each pipe should have a damper in it, that you may regulate the temperature as desired. Hang your thermometer in the cellar, and keep as near 40° as possible. Now, carry your bees and place them in the racks carefully, and the work is done.

If, during the winter they become noisy, give them a little more fresh air, which can be done by turning the dampers. If very warm weather, open the outside door during the evening until they quiet down again. Remove all dead bees from the bottom-boards, which can be done with a wire bent a little at one end; do not leave them in the cellar to decay and get mashed under your feet. Keep the cellar clean, dry, perfectly dark and well ventilated. By complying with the above, I have no doubt but success will be your reward.

Read before the N. E. Convention (N. Y.), and the S. W. Wis. Convention.

Profits of Bee-Keeping—Prize Essay.

GEO. W. HOUSE,

"How can we make the apiary the most profitable?" How to make the apiary profitable can be answered by many; but how can we make the apiary the *most* profitable is the desired object, and the goal to which all aspire. With all the experience and teachings of our leaders in apiculture, such as Quinby, Langstroth and others, we yet find difficulties to encounter. They have opened up many new ideas, have given us light in many dark places, settled doubts, and added *much* to our present success. Italy has furnished us a superior race of bees: America, the movable frame hive, extractor, comb-foundation and many other useful appliances. But with all our knowledge, experience and implements, we have not yet reached that desired haven—"uniform success and profit." During the past 20 years we have accomplished a great deal, but our knowledge of apiculture is not perfect, and we have much yet to learn.

Who can say, in view of what is passing before us in every direction, what the unattainable may be? But how can we secure the largest net profit from our investment is the desideratum of our essay.

To do justice to our topic would require much time and space, as it embraces the whole season's work; in fact, everything pertaining to labor and expense attendant to the science of apiculture. But as prizes are offered for essays on other important subjects, I presume it was intended that our theme should cover the management of the apiary from spring until fall.

First, then, we must lose sight of the debtor side of our expense account, and in doing this, we must exercise good judgment. In furnishing our necessary supplies and implements, we should endeavor to lessen our expenses wherever an opportunity is offered, remembering that a dollar saved is a dollar earned. For fear this saving might be carried to extremes, the successful apiarist should remember that in some instances an outlay of a few extra dollars in some particular direction, he may add largely to the profits of the season's labor. If we can increase the value of our products by expending a small amount, or if we can secure a larger yield of honey with a little extra time or money, we should not be backward in taking advantage of the situation. In complying with these requirements, no fixed rule can be given to govern us. We should strive to have our products in the neatest and best shape of any on the markets; and by a close observation of the demands, together with a little study, we can keep the lead. Apiarists that keep fully up to the times, are the ones who realize the most money from their products. In connection with this part of our essay concerning expense, I would recommend that some action be taken by this association, whereby we would be enabled to purchase our necessary supplies at a large discount, and be of mutual benefit to the members. This can be accomplished by appointing a committee, whose duty shall be to take orders from the members for glass, nails, boxes, crates, comb foundation and the various other supplies. To open correspondence with the manufacturers and send the orders to the lowest bidders.

We will now take up the management of the apiary from the time the bees get the first natural pollen. At this season of the year, we find some colonies strong—others in fair condition, and some in poor condition. Some will want feeding, others room for brood-rearing, while more will need to be strengthened in numbers, and perhaps a few are in various other conditions. Those colonies that have insufficient stores, can be supplied from those having an abundance. Others that are weak in numbers can be made strong by giving frames of brood from the strongest colonies, and inserting in their place frames of foundation or empty comb. Then there are numerous other manipulations of the hive that require immediate and skillful treatment, which time and space will not allow of our giving in this paper. Furthermore, there is no one system of management that can be given for the various conditions of the hive. Circumstances and locality alter cases, therefore the apiarist is forced, to some extent, to exercise his own skill and judgment. We should aim to have our colonies strong in numbers, and as near alike as possible, by the 1st of June for this locality. By this time the boxes should be in place, if working for comb honey, or if working for extracted honey the surplus arrangement should be in position. In fact, everything should be in readiness to secure the flow of honey for the following 6 or 7 weeks. From past experience, I believe the apiary should be worked for both comb and extracted honey, to make our pursuit the most profitable. Every bee-keeper is aware that some colonies will store honey in the boxes, while others can hardly be forced to commence work in the boxes, conditions being equal. Hence it will be seen that some colonies will be most profitable when managed for comb honey, while others would give the largest returns with the extractor.

Here again, many manipulations of the hive are required that space will not permit giving. The whole may be summed up in these few words: See that the bees and queen have plenty of room at all times during the flow of honey. But you say we are now in the midst of the swarming season; what amount of increase is desirable? If more bees are desired, or if the apiarist is so situated that he can readily dispose of his increase at a fair price, I would advise taking 1 colony from each old one that is sufficiently strong during the month of June, and the first few days in July. This swarming should be done artificially. If second swarms should issue, put them into any other hive that is queenless, and you will be surprised to see how they push the work in the surplus boxes. If we have all the bees we care for, I would advise as little increase as possible. The most practical, and, I might say, the most profitable mode of increase for those in such circumstances, would be as follows:

Form nuclei by taking frames of brood and bees from your strongest colonies, putting them in new or empty hives, contracted by division boards. When they have a laying queen, they may be built up to the desired strength by removing the division boards and giving frames of brood, drawn again from our strongest colonies. Frames of foundation should be inserted in the place of the frames of brood, thus taken out. By this mode, we not only have a laying queen in all our colonies at all times, but we secure a rational increase, and prevent nearly all desire of swarming. Our strongest colonies are thus given more room for the queen, and in a few days the new swarm will be among our strongest and best surplus honey colonies.

It is estimated that everything about the apiary, should be so arranged or constructed as to admit of quick working, etc. The hives, and everything pertaining thereto, should be of one size, that each and every piece may be interchanged with other hives when desired.

Read before N. W. Wis. and E. Minn. Convention.

The Progress of Bee-Keeping.

L. H. PAMMEL, JR.

Every age marks its scientific progress. In one a Michael Angelo has been produced, in another a Shakspeare, in another a Huber and a Reaumur. It was Michael Angelo who studied to get the loftiest position that could be attained in Greek and Roman sculpture; to Shakspeare we owe those noble and passionate thoughts to be found everywhere in his works, and still more his works are the foundation of all that which is noble and eccentric in the English language; we owe much to Huber, the blind naturalist, for many valuable discoveries which he made in bee-keeping, as we also do to Reaumur, the inventor of the thermometer. Progress is, therefore, not confined to one age or a single class of individuals, but spreads its banners far and wide, where luxury, pride and ambition reign, or where some renowned hero, his country's pride, falls a helpless victim of immortal renown. It was thus in the age of Cæsar, that Brutus and Socrates displayed their eloquent thoughts on science, art and politics, while Homer and Virgil were engaged in studying the natural history of the bee, and to them we owe the earliest tradition of anything relating to its nature. In this age literature as well as art had attained a high degree of perfection, while all the industrial pursuits of man were yet in their infancy. The bees were hived in the trunks of trees, and the peasant followed the rude wooden plow. Virgil could say something poetically of the bee, but of its natural history he was entirely ignorant. He should be excused, however, as it was a fault of the times.

During the middle ages, when all Europe was in a tumult, nothing was done to develop the science of bee-keeping, as where the foundation had been laid (mostly Italy and Greece) bloodshed and terror reigned. This vast field of science laid idle until Huber thoroughly investigated each particular, and gave the world the benefit of his discoveries. Thus, it was Huber who first assumed that the queen could produce male eggs without the proper fecundation, and that the queen was fecundated in the air, where a drone could meet her. But the movable frame hive was an impossibility with him, for after repeated trials he failed to make one that would work satisfactorily. It was Dr. Dzierzon who perfected what Huber had so long planned out, and from that time until to-day bee-keeping has been regarded as a science. Scholars have studied its wonderful mathematical skill, and the naturalist has found much in the bee that is valuable for cultivation and preservation. Old notions have passed away. It used to be quite common to hear old bee-keepers say that "bees froze up solid in winter," which did not hurt them, and in which condition they required but little honey. Now the naturalist, as well as the bee-keeper, knows that the bee is a tender little creature, and deserves just as much care as he does himself. If, therefore, he wants to reap a harvest from his pets, he must aim to keep his bees in the best conditions of life.

If Homer and Virgil were to arise from their sweet and quiet repose, they would be no more astonished to see the mighty engine with its unequalled power, that can make accurately the most delicate things with ease that no human hand or eye can excel, than to see one of our modern apiaries, where the movable frame is used; where queens are reared and comb foundation is utilized. Wax, as we all know, is a production of the bee, thrown off apparently at will in little scales from the segments of the bee's body. A few years ago the most prudent bee-keepers thought it an impossibility for the queen to be fertilized under confinement; to-day he knows she can be thus fertilized to great advantage.

The bee being the most intelligent of the insect creation, and so industrious and frugal in its work, it is no wonder that man has from times very remote until the present day, studied its natural history and peculiarities, and revered its noble use. Men of great learning and skill may aim to trace its origin or study its natural history, something of that noble insect will ever remain a mystery to mankind.

LaCrosse, Wis.

For the American Bee Journal.

Western Michigan Convention.

A meeting for the purpose of organizing a Bee-Keeper's Association for Western Michigan, was held at Berlin, May 26th.

The convention being called to order, proceeded at once to organize, with the following results: The name, "Western Michigan Bee-Keepers' Association," was chosen; then a constitution and by-laws were adopted; 18 became members, 3 of whom were ladies; and the following officers elected: President, Wm. H. Walker, Berlin; Vice President, T. M. Cobb, Grand Rapids; Secretary, Wm. M. S. Dodge, Coopersville; Treasurer, Mrs. C. S. Dodge, Coopersville.

After some other business was disposed of, the members indulged in a little friendly discussion, to the enjoyment and profit of all.

It was decided to hold the first annual meeting at Berlin, Ottawa Co., in Huntley's Hall, Thursday, Oct. 27, 1881. Bee-keepers of Western Michigan are cordially invited to participate.

Around this nucleus we hope to see gather, in time, one of the best district Bee-Keepers' Associations in the State.

WM. H. WALKER, *Pres.*
WM. M. S. DODGE, *Sec. and Treas.*

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 15@18c. for strictly choice white comb in 1 and 2 lb. boxes; at 10@12c. for common dark-colored and broken lots. Extracted, 7½@9½c.

BEESWAX.—Choice yellow, 20@23c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 14@17c.; dark 11@12; large boxes 2c. less.—White extracted, 9@10c.; dark, 7@8c.

BEESWAX.—Prime quality, 20@25c.

CINCINNATI.

HONEY.—The market for extracted clover honey is good, at 8@10c. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY—Most of the honey now in market, both in first and second hands, has been either withdrawn or placed at a limit above current rates. This action is confirmatory of the unfavorable prospects heretofore referred to. We quote white comb, 12@14c.; dark to good, 9@11c. Extracted, choice to extra white, 5¾@6¾c.; dark and candied, 4@5½c.

BEESWAX—21@22c., as to color.

STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., May 21, 1881.

SPECIAL NOTICES.

☞Single copies of the JOURNAL are sent postage paid for 5 cents each.

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☞Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

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☞When changing a postoffice address, mention the *old* address as well as the new one.

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☞The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

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☞We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

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☞Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

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Many Lose Their Beauty from the hair falling or fading. Parker's Hair Balsam supplies necessary nourishment, prevents falling and grayness and is an elegant dressing. 22w4

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☞Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

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☞We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

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☞Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

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☞Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

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☞The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

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PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

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☞At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

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☞It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Postoffice, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆ ◆ ◆

An Old Lady writes us: "I am 65 years old and was feeble and nervous all the time, when I bought a bottle of Parker's Ginger Tonic. I have used a little more than one bottle and feel as at 30, and am sure that hundreds need just such medicine." See advertisement. 22w4

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THE ARABIAN NIGHTS' ENTERTAINMENTS. Illustrated with numerous wood engravings, descriptive of those many strange and singular stories which the legend says the Sultaness of Persia related to the Sultan night after night, in order to prolong her life, and thus finally won his affections and delivered the many virgins, who but for her would have been sacrificed to his unjust resentment.

SAVED AT LAST FROM AMONG THE MORMONS. Every man and woman in the land should read this story which is founded upon facts, and gives an insight into the low estate of woman under the Mormon rule.

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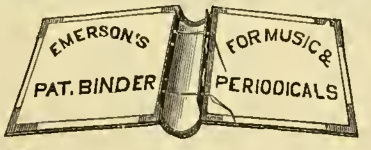

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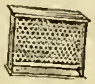

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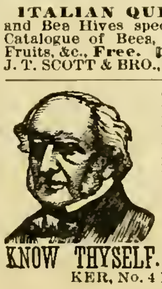

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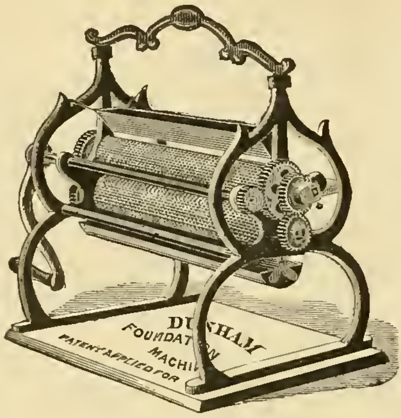

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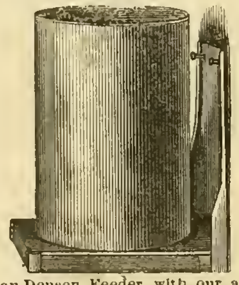

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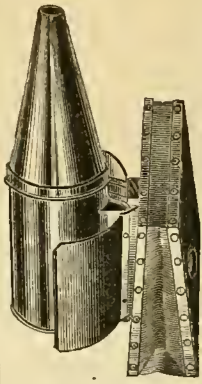

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OLDEST BEE PAPER IN AMERICA

THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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CORRESPONDENCE.

For the American Bee Journal.

Top vs. Side Storing.

GREINER BROS.

We were highly entertained by the able discussions on the above subject by Messrs. Heddon and Doolittle. As they take the opposite sides of the question it gives an opportunity to profit by the argument; we have also experimented on the same question for the last 3 or 4 years, and can add a few more thoughts from our own observation.

When we commenced bee-keeping, we adopted Mr. Heddon's plan; tiering up, exclusively, for the production of surplus honey. Our surplus cases, or half-stories, are arranged to tier up, the top and bottom being alike accessible for bees, admitting the adjustment of any number, and are therefore virtually the same as Mr. Heddon's surplus arrangement.

In the year of 1877 we transferred 8 colonies, and supplied 3 or 4 of these with sets of 9 four-pound glass boxes; we had, at that time, not adopted the 2-pound sections entirely, but experimented with different styles. A week later we found these glass boxes about ⅔ finished; we raised them and adjusted one of our surplus boxes. In another week the latter was as near filled as the glass boxes were the week previous, but the boxes were not yet finished. Of course another surplus case took the place of the first one; and this, with the 9 boxes, went up another story. By that time our hives had much the appearance of house chimneys, and we began to wish that our bees would finish some of the top work. The next week we were puzzled; the last adjusted case was ready to be raised up again; the first one nearly, and the boxes almost finished, but none ready to be removed. In our excitement we added another case, and had then a capacity of about 140 lbs. of surplus honey on those hives. When the season closed, nearly all this honey was finished, and we harvested from these colonies about 1,000 lbs. of comb honey, by the tiering-up plan. This we considered a success, and if Mr. Heddon can succeed in producing such amounts as he stated in the last number of April, he may well be satisfied with his plan.

The next year we began to practice artificial swarming, or, rather, divided the colonies, to prevent natural swarming; we had not yet tried queen-rearing, but used capped cells for the queenless halves. We noticed that these divided queenless colonies, while their queens were hatching and being fertilized, would store most invariably an abundance of honey in the brood-chamber, and we wished, time and again, that we had this overplus honey in sections. Our hives were arranged in such a way that six 5x5½ sections just fill the brood-frame (originally calculated for feeding purposes), and we conceived the idea that frames, the same width of, and filled with our sections full of comb, substituted for some of the brood-frames, might possibly help us out of the dilemma. The plan worked in many cases to a charm, and the starting point of our side-storing plan was established.

Mr. Heddon says: "To move sections from the side to the top is too much work." This we found to be true; the operation looks easier on paper than we find it to be in reality, and for this reason we have not yet practiced it very thoroughly; but what harm is there in placing, according to the size of the hive, one or more side-storing frames in the same, to be taken out again when the honey season is over? It gives the bees a chance to work at the side, if they choose to. We have taken hundreds of finished sections from our hives in this way, which we considered an addition to our honey crop.

We can hardly agree with Mr. Heddon, to call it "the wrong place;" we always find the side-frames in the brood-chamber containing the most honey. Many solid side-frames of honey which we have recently taken from our perished colonies, are a proof that bees do not refuse side room for storing purposes, and we do not think that they possess the ability of discerning sections from brood-frames, but accept the former as readily as the latter, so long as they are in the same place. It seems that it is more in the immediate vicinity of the brood-nest that bees prefer, rather than the direction. The instance related above shows that they worked with the greatest rapidity in the case next to the brood-nest, less in the second, and hardly any in the third and fourth; for some of the glass boxes were never perfectly finished.

Mr. Heddon's assertion, "the well known fact that the very first place bees use in the spring, is in the top of the hive," does not indicate their objections to storing at the side. How is it, when we hive a young swarm into an empty box hive (which comes the nearest to nature's provision) that the first used is the top, and yet, when the hive is filled and prepared for wintering, we find, as a rule, that most of the stores are at the sides? Is it not their natural inclination to work sidewise as well as in any other direction?

The size and shape of the hive, locality, season, etc., may have a tendency to make one or the other plan more practicable, but we are convinced that side-storing is a great advantage, and we should use some side-storing arrangement, even if we used a hive as shallow as the Langstroth.

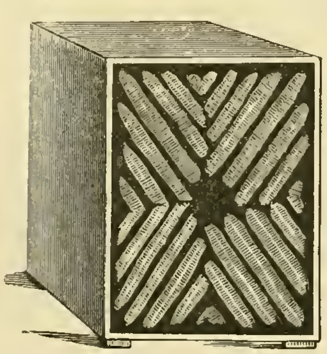
Naples, N. Y., May 23, 1881.

For the American Bee Journal.

The Cause of Winter Losses of Bees.

HIRAM ROOP.

A friend wishes to know why I would rather have 100 colonies left out of 200 wintered out-of-doors, than to have 150 left out of the same number wintered in the cellar (*i. e.*, that is the way I put it), and as I have had no reason for changing my mind, I will tell why. I had, in the fall of 1880, 156 colonies of bees in the best condition for wintering; as were all the bees in this part of Michigan. Thirty-eight of my colonies were in the winter-protector hive; the rest, 118 colonies, we put into a cellar, where I had wintered without loss during the past 10 years. As a result, I had on June 1, 1881, 19 colonies left from those wintered out-doors, and 21 left from the cellar; that I have kept alive by giving combs of brood and bees taken from the out-door colonies. Many of my friends know that this was my first severe loss as a bee-keeper, and I want to say that I am not discouraged, and while I do not wish to be on the contrary side, I must disagree with all that have offered theories as a cause for this mortality among our bees. When asked my opinion, I answer by asking what caused the yellow fever in the South? the epizootic with the horse? Our bees and their honey were all right, but the weather was all wrong; *i. e.*, atmospheric changes. One of our neighbors had, in the fall of 1871, 84 colonies of bees in box hives; the next spring all had died but one, and that one was strong and commenced swarming early. In the fall of 1880 he had 32 colonies in box hives, and lost all again, except the same old box, and that cast a large swarm on May 27, 1881; the combs in the box are built from each corner to the center (as shown in above engraving). I know of many more like instances but give this one for the benefit of that class who think no further improvement in hives necessary.



Carson City, Mich., June 13, 1881.

For the American Bee Journal.

Experience with Comb Foundation.

JAMES S. LORD.

I have read the BEE JOURNAL for years and have noted all the articles on foundation, giving the good and bad points of all the different kinds. I tried 2 kinds last year—the flat-bottom and the Root. Some of my hives take frames 10½x13 in. inside, the long way up and down. I know this is the reverse of most of the frames in use, but I think in severe winters, like the past one, they will winter bees better than shallow frames. I know they have with me, for I have both kinds, 10½x13 and the Langstroth. I practice natural swarming and I cannot get foundation to stand the weight of a large swarm, unless it is wired, and I do not believe it can be made to stand, unless it is wired, on as deep a frame as mine. I tried 5 swarms on the Root, and it all fell down, some close to the top-bar and some an inch lower, and it nearly ruined the bees in 5 hives. I put 40 colonies on wired flat-bottom foundation, 8 frames to the hive, and into 2 hives I put 2 heavy swarms each, and there was not a bad comb in the lot, and all were built out in a very short space of time.

I did not see a full card of sealed brood; once in a while there was an empty cell, but not enough to make any material difference; I never saw a solid card of brood, even on natural combs, but I have seen brood in cells that the wire ran through, and I think the queen did not skip them oftener than she did the other cells; still I think I should like foundation with a natural base better, if I could have it wired. The Given press will do that, but I must own a press because my frames are not a regular size, and the dies must fit the frames.

I have 60 colonies of bees now on my sized frames and could not afford to change, and would not if I could. My hives are made to pack all around and over the bees in winter, and in the honey season I use side boxes, 12 outside the frames. I get 56 4½x5¼ boxes within 6 inches of the brood-frames, and I like them better than tiering up.

I do not like to run Mr. Hawley out, in the stingless bee enterprise, but I have any quantity of colonies that I will warrant not to sting.

Probably 90 per cent. of the bees in this section are dead. I have informed myself and will give the report of 8 or 10 who use box hives and single-walled hives:

No. 1, lost 20 out of 22; 2, 27 out of 29; 3, 80 out of 87; 4, 12 out of 14; 5, 7 out of 7; 6, 10 out 10; 7, 30 out of 30; 8, 60 out of 100; 9, 33 out of 36. Others have lost in about the same ratio.

I commenced the winter with 70 colonies; 10 of them in old hives that I did not have time to transfer, and the other 60 are in the "Genesee" hive. I did not pack the old coolies, and have lost 6 of them; the Genesee hives were all packed in planer shavings, and I have lost 5 of them. They had a flight on Nov. 10th, and did not have another until Feb. 10, just 3 months; this shows quite a difference in favor of the "Genesee hive."

Linden, N. Y.

For the American Bee Journal.

Are Bees a Nuisance?

J. H. MARTIN.

Mr. Heddon wishes for information about bees being a nuisance. There has one case of the kind come to my knowledge. An apiarist in Vermont built up a very fine apiary of black bees, and took pride in keeping it in order, beautifying it with flowers and rose plants. He secured great yields from his 60 or 70 colonies, and was prospering finely in the business.

This apiary was located in a small hamlet of half a dozen houses. The nearest neighbor on the south was close to the apiary; the yard also faced the public highway. Neighbors on the south being so near the bees, members of the family were frequently stung, but our bee-keeper was indifferent to pains and swellings, and rather enjoyed the fun. There was so much complaint from this neighbor that our bee-keeper thought of the brilliant idea of running a high board fence along the south side of his apiary, and within a foot of his neighbor's house The idea was put into execution soon after being born, and 2 windows that were a pleasure to the family, were rendered useless and darkened by the high board fence.

The ire of the neighbor was aroused. He knew that besides members of his family, members of other families on the north and horses on the highway had been stung. An organized effort was then made against the man with bees, and they were complained of as a nuisance.

The selectmen of the town were called upon to investigate the matter. They came and hitched their horses upon the highway—one of the horses was stung, and the apiary was soon decided to be a nuisance, and the bee-keeper was compelled to remove it to an orchard several rods from the highway. The board fence, however, still stands.

Now, we claim that if our bee-keeper had been upon friendly terms with his neighbors, and given them a pound of honey now and then to alleviate the pain, and had shown any sympathy whatever for their sufferings, his fine apiary would never have been removed; charity and kindliness would have made them friends and defenders, instead of enemies.

This is the only case of bees being considered a nuisance that has come under my notice, and the bee-keeper himself is clearly to blame.

Hartford, N. Y., June 11, 1881.

For the American Bee Journal.

Upward Ventilation.

F. H. MINER.

In a review of my former article on the above subject, Mr. Doolittle on page 65 of the Bee Journal for March, says bees in a tree cut out the part softened by decay above and around them, and glaze to get a good condensing surface to prevent absorption, which would deprive them of water, hasten decay, and ruin their work. He says "they go in at the top;" if so, they must be in a bad fix. All upward-ventilationists agree they must have tight tops to maintain a breeding temperature in spring, but can breed very well in winter with a big hole above them, and the thermometer 30° below zero. He further says my predictions of "great losses are all groundless;" I wish it was so. True, they did not smother—with open tops, nobody said they would—but wore out creating heat. He calls my attention to the hollow tree. There is where I studied my lessons, and was under the impression he laid the losses to the old basswood-gum men. I have examined a great many trees, and inquired of bee-hunters, and with very few exceptions bees go in at the bottom or side; the decayed wood, kept dry by glazing, is a good non-conductor. He further says, with upward ventilation the bees make the circulation. Just so; where there is life there is heat; hot air is light, and rising, escapes where there is a big hole in the top, while the cold outside air is heavier, and flows in to supply the vacuum; the more heat they generate the faster it escapes, the movement being determined by the difference between outside and inside temperature. It is impossible to be comfortable in such a place; contraction is the resource, the increased consumption of honey and air, the sources of water, make too much, and it condenses and congeals too near the bees, because our hives are cold, ill-shaped, too much radiating surface, and too thin. They perish in the cold season; cold and wet does it. Mr. Doolittle does not believe in giving water—all right; nature does that if we do away with absorbents. He says they should not breed early, but nature takes no counsel of us; she has given instinctive foreknowledge we cannot safely interfere with. I find it difficult to confine them until pollen is plenty; they seem to know when the outside air is warm, and get uneasy.

Mr. Doolittle says the majority of apiarists believe in upward ventilation; that is encouraging. I remember when they were all that way, and I was a heretic. The writers, the masses, never adopted an error so contrary to nature, and unknowingly took Francis Huber's advice to study nature. Burket says he has a colony which has been in a gum for 20 years, and with other old bee-keepers says they are best to winter in; as they are spherical, narrow and easily warmed; the Deity sends them there for a home, and he knows almost as much as we do, though we do not think so or we would not sneer at the old log gum Mr. D. speaks of a large hole near the top for the bees to go in and out, which prevented losses. Forty-one years ago I was green enough to try a fly-hole just under the cover. The bees made a stopper of their bodies to retain the heat for comb-building and breeding purposes, contracted the hole with propolis, allowed no ingress or egress, and used a fly-hole lower down.

The upward ventilation theory requires changes and attention which could not be given in a state of nature —a little water on a sponge, closing the top in the spring, etc. Thus, condition must do for all seasons, and if ever practical, it is only in artificial circumstances, while lower ventilation is adapted to all times and situations. The bees come out and go back, thus controlling the temperature at all times. Our frequent and severe losses, and the great difference in essentials between practical men, proves we have not much wisdom. I want no absorbents about my bees to hold moisture, because it will freeze and remain to keep them wet. I have tried many kinds of hives, and think the surplus water should go out below, as in a state of nature. Unless our teachers can tell me something better, I may go back to that old contemptible log gum. I know they will winter there.

Crescent City, Ill.

For the American Bee Journal.

Keeping Bees on Stilts.

W. G. P.

Mr. Hopeful concluded he would keep bees. He was fully persuaded in his own mind that it was the most fascinating and profitable avocation on the face of the earth. Had he not looked through the "A B C of Bee-Culture," and digested several whole chapters of Cook's "Manual of Bee-Keeping," and fairly got the "Blessed Bees" by heart? Could he not expatiate upon the wonderful accomplishments of the winged insect—the busy bee—and even soar up into the sublime heights of poetic thought as he dwelt upon their manifest agency in the affairs of nature? Surely 100 colonies would just "set him up," because, according to John Allen, they ought to yield at least 500 lbs. per colony, and certainly after friend Hasty got his improved clover into operation, one could double that yield. Good Mrs. Hopeful mildly suggested that, though it certainly looked promising, she once knew a man who only got ¼ of that amount from 2 colonies, and thought he did pretty well. Mr. Hopeful rather impatiently said something that sounded like Jack—, and then proceeded to enlighten the sadly informed Mrs. H. upon the subject of bee-culture.

As in deep fervency of spirit he proceeded to enlarge upon the mysteries of scientific apiculture, dear little Mrs. Hopeful's heart also began to expand towards him, and she was heard to exclaim in an undertone, "La me, how much he does know." Yes, bee-keeping, he reasoned, was certainly his special province, for who ever heard of an individual that could "talk bees," that wasn't bound to succeed with them? True, says he, Doolittle and others have uttered cautions and advised beginners to "make haste slowly," but of course they are only croaking. "Give me the bees and I'll show 'em." As good luck (?) would have it, along came Tom Cheat that evening, and hearing that Mr. Hopeful had a violent attack of the bee-fever, slipped in to see him (you see friend Hopeful had fairly made his neighbor's ears buzz by his incessant talk about bees). Tom had about 40 "gums" (how contemptuously Hopeful smiled in his sleeve on hearing that last word) and would sell them at the low price of $6.50 each, just because he hadn't the time to spare to "tend 'em." Furthermore, he heard Bill Slambanger remark that his (Tom's) bees were the "rale Itland bees." That last remark was a clincher for Hopeful; he closed the bargain on Tom's terms, then and there. Surely being Italian bees they were a bargain. What if it did finally compel him to sell his best cow to replace this outlay? Italian bees wern't to be bought every day and money wasn't an object in comparison. Tom, being severely troubled with corns, it would, he said, greatly oblige him if neighbor Hopeful would come himself and remove the bees. Hopeful readily assenting. Tom smiled as heathen Chinese are supposed to, and jingling his cash, was off.

It was on a salubrious spring morning, not *many hours* after this, that our esteemed friend went after his purchase. He hitched up to the old springless farm wagon, of course, as it would hold the most. Son John accompanied him; he was anxious to get his "pets" home before they "thawed out," for it didn't require "book larning" to teach him that bees "froze up" during the cool months the same as bears, etc. Arriving at Tom's he bethought himself to look at the little beauties, and be assured, to use his words, "that they were still torpidized." Sure enough, as he boldly peeped under several stands, there they were, so quiet, and still, and stiff. Why he could (he declared to John) put his hand right up beside them and not so much as feel them stir, unless it was to drop to the bottom-board. He was delighted; he looked at still another. This was somewhat heavier. He enjoyed to fondle these "darlings," but so suddenly and very energetically he withdrew his hand, snapped his fingers, and John asserts down to this day that he uttered an exclamation that sounded very much like "golly"—anyway, he quickly remarked that he gussed he wouldn't examine any more. Tom suggested putting an old bag over some of those that he was afraid had been awakened by wood chopping in the next yard. This was very thoughtful of Tom. So they loaded them up—the whole 40—thanks to Tom's ingenuity, and drove off. John was assigned the driver's seat, while the proud father rode astride the load to direct the movements of the precious freight. All went smoothly as need be for the first mile, though John remarked that he thought the old mill dam must have given way again as he heard such a roaring near by. They did not investigate, however, until friend Hopeful ordered a halt, as he said, "to pick out the slivers" from his nether limbs. A search revealed the fact that the so-called "gums" were very rough on the exterior, and some of Mr. Hopeful's bees seemed intent upon examining said roughness, as they rushed excitedly up and down the same. But such trifles failed to disturb Mr. H's equinamity. He chose a more favorable seat and the line of travel was resumed. A turn in the road brought them in sight of Mr. Hopeful's peaceful abode. Suddenly there were signs of excitement exhibited on the part of the off horse, and a sudden muscular raising of the hinder limb, which resulted in the entire destruction of one of the "gum heads" as the lively animal's hoof dashed into it. Both horses now became remarkably animated. John had no opportunity to investigate, but he was morally certain that he was sitting upon a very rough and much splintered piece of bee-furniture, and that it felt very hot to him. At this juncture the neighbors all say our friend Hopeful was frantically waving his bandanna handkerchief around his head. It was certain, as the horses rushed frantically into the yard, he was ejaculating something like "not so very torpordised, after all," "worse than hybrids," "get the hartshorn," and other like significant expressions. A future number will perhaps portray Mr. Hopeful's future progress in bee-culture.

For the American Bee Journal.

Mi Lamentid Ded.

B. HIX.

It iz ezy tu report disastur, when it don't kum klose to hum. i kan talk purty freely abowt mi nabur's losses, but when litenin striks me i aint quite sow volubel. Mi bea report wood hev bin spred befoar the reders ov the Journal long agow, Butt i wanted 2 git over mi solemnity a little, and alsow 2 sea if mi losses went above a hundred pur cent., whicth it haint, thanks 2 a warm spel. The first weak in March found me steppin' hi, and i wuz prepairin' an artickle fur the press, on "How 2 winter beas sucksesfully," Butt there waz a hitch in the tune, and it haz gone into the waist baskit or oblivion, along with mi aspirations and mi prospective hunny krop. Marck 20, 1881, waz a sad da fur me, the wether waz warm and old "sol" shone mockingly down. A kold snap had interveened and i wuz onezy, fur the beas dident seam 2 take in the situation. Now and then a Backteary laden bea wood fly athwart the yard with a doleful dissentary hum that lingerd in mi ears like a funerial nell.

I notist a slight depreshion in mi feelins az i approached and lifted the kuver ov no. 1—ded, chaff, cos, starvation. No. 2, i lift the kuver tremusly, ded, gone to the land ov shadders packed in chaff. No. 3, ded, 2 much hunney jest out of reach fur a kold snap, snaped their thread of life. No. 4, hibrids, chaff, kombs the most fowlest ever seen, Butt not ded (ded enuff 2 da), i fix em, and proseed 2 No. 5, pure italions and ded, the sweat starts. No. 6 to No. 42, awl ded butt won and that purty week. I think of Muther Shipton's prophesy relating to the end of the world, and reflect that purhaps the awful fiatt or annihilation hez commenced in earnest. "And the evenin' and the mornin' waz the first da," March 21. If i rember kerect, i dident sleep a very good slumber the nite befoar. How kan i keep this thing from my nabors? shal i keep mum, or face the music like a man? waz the thots that drove mi sleep awa, 10 o'clock, a. m. With sett teeth and the aggony ov hopelessness pictered onto my face, i lift the kover of No. 43, a large swellin' under the quilt rivets my attention—it sturs, and presently 5 deer mice, slick and fatt, skampur awa; a hole at one end reveals their base ov supplise. No kloggin' in this hive, bottum-board clean, beas in fine kondition, sum hunney and a little brude. What a pity i dident have mice enuff 2 gow round. The mice served a dubble purpose; they kept the bees dry and free from kloggin', also both beas and mice assisted in keepin' up the temperature. Az i sloly butt fully komprehendid the astoundin' revalation that perhaps a fatt wood-chuck in a torpid state, klose to the brude-nest, seperated by a skreen division-board, waz the kee tu unlock the dark mistery ov winterin' beas, I waz overkum with joy. Sixty kolonis moar waz haistily examind and 8 found alive. Butt the hang-dogg mournfulness which caractized mi first day's performance had given wa 2 an abnormal kalm. That nite i slumberd; in mi dreems I saw mi emty hives, now silent and 'grim, agin teamin' with the bizzy hum ov industry, i saw the price of wood-chucks advancin' and wood-chuck farmin' on a grand skale waz fully developed, and the winterin' ov bees waz no more a question than the winterin' of a mule. I wanto gow onto the record az the furst man 2 utelize this quadruped ov the klover field. I have nun 2 sel and the plan wont be pattented. Deer reder, mi report iz befoar you and i hope you air satisfide.

CONVENTION NOTES

Read before the S. W. Wisconsin Convention.

Bee-Keeping—Will it Pay?

NEWELL FRANCE.

The idea many people have, that bees will take care of themselves, and bring the apiarist large returns for little or no labor, is incorrect and a drawback to bee-keeping, as well as inducing many to engage in the work who are not adapted to it, either in natural taste or love for it, capital to work with, or a sufficient knowledge to insure success.

Ignorance of bee-culture is one, if not the greatest cause of failures. Thorough knowledge of the business is necessary, as well as practical application and hard work.

Much information can be obtained by reading bee-papers and books, but actual practice in the apiary is just as necessary; in fact the successful bee-keeper must have both. He must always be willing and anxious to learn something for improvement, and if he is so, he will find plenty in advance for him.

In successful bee-keeping more depends upon the bee-keeper than on the kind of hive, bees, or even location, although these are important. He must have enough interest to know every month the exact condition of each colony, their wants, and how to supply them at the proper time. I know not of any other out-door work that depends so much on the right thing being done and at the right time. This is especially noticeable in the spring or harvest season, which, in this latitude, is so short, that a mistake then made may cause great failure.

He must be observing at all times; for instance, in the spring or fall, when there is nothing for the bees to gather, he hears a bee fly by with that peculiar hum of robbing—he must immediately find the cause, for if left a day or two he may find some colonies robbed of their stores, and perhaps those bees have become discouraged and left.

I have found, by experience, that activity is very important. The apiarist must move around quick, always being careful. Some people can move quick enough, but in so doing are careless, hitting things near by them, etc. This will not do, for often a jar or careless motion causes serious work.

In obtaining hired help I have found that boys 15 to 18 years old will be as careful and very much quicker than grown persons, besides, they do not demand as high wages. Some may not see the use of being so careful. I will illustrate: I have a frame with a new comb in it, full of honey, to extract; I am a little careless and jar the comb in taking it out of the hive, or in sweeping bees off, or I may hold the comb a little sideways—the result is the comb is broken and of no more use, and perhaps the honey lost also. Examples of this kind very easily occur at all seasons. At some of our conventions we have been asked if we thought such and such a person would succeed in bee-culture. That, of course, neither we nor anyone else knows until they have tried; but if they have poor eyesight, or are much of a cripple, I would not advise them to attempt it. It takes a keen and quick eye as well as good use of hands and feet. I am not of the opinion (which I have seen advanced) that a person of too poor health to do other kinds of labor can retire to the so-called easy work—bee-keeping—and make it a success. True, bees are interesting to study, and the Italians beautiful in color, and will give pleasure, even to an invalid, but I much question the prospect of success for such to make it a specialty. With such a winter as we have just had, many bee-keepers of little or much experience are disappointed, and some are discouraged, determined to hereafter buy what honey they want, as it it is cheaper for them than to bother with bees all summer, and when winter comes have such losses. I admit it does look discouraging, but he that succeeds must not get discouraged if he does have some losses. See the farmer—does he quit farming because some year his crops fail, or his stock becomes diseased? No. He goes right down to the scientific analysis of the cause; finds it, and how to hereafter prevent the same failure, and, in the long run, is benefitted by having had the failure.

So it is with the successful bee-keeper. If a trying winter comes, he will, if he succeeds, do all in his power to prevent any cause of failure before experienced. He must not be easily discouraged; ever determined, success *shall* be his portion. Generally, one extreme follows another. We have had a few years of easy work to succeed, but this last year has brought us the other extreme; why not look for its reaction in the year approaching? All bee-keepers, however, do not keep bees to obtain their profit from the honey produced. Many keep bees to rear queens and colonies to sell. This part of bee-keeping is getting to be quite extensive, and I think many realize a far greater profit this way than they would by producing honey. Thus our papers have many articles on Italians, claiming their superiority without practically testing, when, I think, the writer's object is to advertise himself as an Italian breeder.

The Italian bee was first imported into America in September, 1859, and ever since importation and home-breeding of queens has been constantly gaining, until at present the supply rather exceeds the demand, and importers are opening a new field by introducing other races of bees. Bees can, and have been greatly improved, but I think much is said when the object is to help to sell queens. My only objection is, it induces the beginner to place too much confidence on the supply dealer's advice.

Both the honey producer and supply dealer are needed, and can make it a success, if prepared and determined so to do. How many kinds of occupation are there that people engage in and are successful, without first having served some time with some one of practice? The blacksmith, wagon-maker, miller, carpenter, editor, etc., had to serve considerable time in practice or preparation before he was considered capable of doing business for himself. Why, I ask you, is the bee business an exception? Should not the keeper of bees be schooled and given practice, just as much as the learner of any other trade? Too many are trying to do too many kinds of business at once, to ever make it pay. If he is to be an apiarist, he must not let other business interfere when the bees demand attention.

Again, if you keep bees can you afford to take a paper or not? Yes; most certainly, if you have bees enough to have honey to sell. The best bee-papers are, the BEE JOURNAL, *Gleanings*, the *Exchange*, etc. The best books are, the "A B C of Bee-Culture," for beginners, and Cook's "Manual," for the more advanced and scientific.

Read before the S. W. Wisconsin Convention.

Wintering Bees in a Pit.

REESE POWELL.

A dry pit is very well adapted for wintering bees, even though it be not wholly secure from frost; the temperature will be much milder and more uniform than in the open air or cellar; the bees will be more secure from disturbance and will be protected from the piercing cold winds, which cause more injury than the greatest degree of cold, where the air is calm.

Universal experience teaches us that the more effectual bees are protected from disturbance and from the variations of temperature, the better will they pass the winter, the less stores will they consume, and the more vigorous and numerous will they be in the spring.

The pit may be made 4 feet wide, 4 feet deep, and the length to depend on the number of colonies to be put in; the sides and top should be boarded, to prevent the loose dirt from falling in, and about 6 inches of straw or hay should be spread on the top to absorb the moisture (before banking lock the dirt), and 2 pipes on each end, 4x6, inside measure, to give them ventilation.

If either bees or stores are lacking they should be supplied during warm weather, so that all may be quiet and ready for the winter long enough before it becomes steadily cold.

All the hives should be examined about Sep. 1, and if they have not enough bees, double them; extract all the unsealed honey, leaving about 25 lbs. of sealed honey for winter, and if most of this is gathered in June, so much the better. Last year I took 4 combs of basswood honey, containing 25 lbs. in all, and gave it back for them to winter on, and took away all the late fall honey, and they wintered splendidly, and are now the best colonies I have; they seem to be as strong now as in the fall.

Read before the N. E. Convention.

Requisites for Wintering Bees.

H. H. FLICK.

To a reader of our bee publications it is plain that there are many bee-keepers or persons who keep bees in summer but not in winter; many others have doubtful or ill success in wintering.

I made my system of winter management public in 1873, through the *Busy Bee*, and have since written various essays for our conventions, upon the same subject: but in bee-culture, as in everything else, we need "precept upon precept," hence my excuse for again writing upon this threadbare subject.

A theory is known to be correct, when, being put in practice, it proves true. My system is based upon common sense and well known facts; is exceedingly simple and easily understood. It was proven successful for 7 successive winters, not having lost a single colony by this management, while colonies in the same apiary, and others in this vicinity, not cared for as described hereafter, have perished.

Preparations for successful wintering must commence in spring, as soon as the honey season opens. All colonies must be kept strong. A good bee-keeper will not permit his bees to be reduced in numbers, either by natural or artificial swarming; neither will he extract honey from the brood apartment. This is a vital point. Early honey stored by the bees in the brood chamber is always good, and if the bees are properly managed, enough good honey will be placed in the brood frames for the bees to subsist on during the severest weather. Many bee-keepers make a mistake right here, by extracting all the good honey, and expect the bees to live on fall-gathered sweets. I never extract from the brood chamber, but keep good vigorous queens, and abundant surplus room, and I never find the queen crowded with honey, neither have I a complaint about late breeding. Frost usually kills all honey-producing flora during the latter part of September, and our bees never breed in October, yet they always winter and spring safely.

We are situated in 40° north latitude; elevation above the tide water, 2,200 feet. We are located in the valley between the Allegheny and Laurel Ridge mountains, and our winters and springs are pretty long and severe, on account of our high latitude.

If there are any weak colonies in the fall, they must be united, and if any are short of stores, they must be provided for by giving combs from those colonies that have too much. No colony should go into winter quarters with less than 30 pounds of good honey; more will do no harm, and it must be in as compact a form as possible. To have the stores for winter spread over 8 or 10 combs will never do, as the cluster of bees cannot change combs in cold weather.

The size and shape of the frame has much to do with successful wintering; the frame I use is 13x19 inches outside dimensions. By using this sized frame the bees have the sealed honey above, and rearward of the cluster, the warmest part of the hive. As the honey in the forepart of the combs is consumed, the cluster gradually moves back.

During the breeding season we use 7 of these frames. In the fall we contract to 5 or 6. These are placed in the centre of the stand; across the top bars I lay 3 or 4 sticks ¾ in. square, and cover with a good woolen quilt. These sticks permit the bees to pass over the top bars from one comb to another. I also have passage holes 3 or 4 inches below the top bars in the combs, thus giving access to all parts of the hive.

By placing the combs in the middle of the outer case, or house, an empty space is left on all sides between the brood chamber and outer case. This is filled with chaff or finely cut straw. The space above the quilt is also covered with the same material, to a depth of 17 inches. This keeps the bees warm by retaining the animal heat, guarding against sudden changes of temperature, and insensibly carrying off the vapor, exhaled by the bees. Under the roof at each end, I have ventilators to permit free circulation of air above the chaff to prevent moisture from collecting in the packing. Bees packed in this way need very little ventilation.

In the winter of 1878-9, about ½ of our bee-houses were entirely covered with snow for 2 or 3 weeks, the winter being a severe one, but no ill effects followed; swarming commenced as early as the 5th of May.

I close the entrance to about ½ inch, and the portico slides brought together within about ¼ inch—the entrances not matching—one being set at the right side of the portico, and the other at the left, thus preventing cold draughts of air or snow from entering direct. This also makes it impossible for mice to enter. Whatever hive may be used, care must be exercised to exclude mice; the entrance must be well guarded against these depredators.

During the winter, on mild days, when bees fly, the entrance can be enlarged, and the bees may be assisted in removing dead bees and litter, when long confined; this, however, is not necessary, only a help. For this purpose a long handled scraper, made from heavy wire, should be used. The refuse of the hive should be scraped into a receptacle, and carried away from the apiary. The manure heap is the best place for such filth. At other times the bees should not be disturbed, but let severely alone. The packing may remain until warm weather, according to locality, when it must be taken out clean, the colony inspected, and put in shape for its summer labors.

There are 7 fundamental principles: 1. We must have all colonies strong; 2. each must have a fertile queen; 3. plenty of good food easy of access; 4. never extract honey from brood frames; 5. a frame of the proper size and shape; 6. passage way across and through combs; 7. ample protection against the sudden changes of temperature, whilst properly ventilated so as to insensibly carry off the moisture exhaled by the bees.

The advantages of this system are:

1. There is no trouble in carrying heavy hives to and from the cellar.

2. Bees can fly any time during the winter when the weather will permit.

3. During cold weather in spring, packed hives are warm, and bees breed much more rapidly than in any other way.

4. The preparing and packing for winter can be done during early fall at leisure times, and when packed they need no more attention till spring except to enlarge the entrances once or twice during mild weather.

5. We find no moldy combs or diseased bees.

6. Bees wintered in this way in pure air are strong and vigorous, breed up early, and "spring dwindling" is unknown.

7. There is satisfaction in knowing that your bees are comfortable, and by safely wintering all your colonies you find them strong when the honey season opens.

Lavansville, Pa.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., JUNE 22, 1881.

Special Notice.

The next number of the Weekly BEE JOURNAL completes the first six months of its existence. We are more than pleased with the manner in which it has been received, and the welcome that has been accorded to it everywhere.

Several thousands have only subscribed for six months, and their subscriptions expire with the next number. To all such we wish to make a few remarks:

By sending on their renewal *at once*, they will not only prevent the annoyance, to themselves, of missing the regular visits of their old friend—the Weekly BEE JOURNAL, but they will save us much trouble in taking their names off from our mailing lists, and then re-entering them within a short time. We hope all will renew at once or else send us a notice, by return mail, if they desire its visits continued.

Once in a while we receive a rather uncourteous letter because the BEE JOURNAL is discontinued when the time is out that has been paid for. We try to please all our subscribers, but it is not an easy task for us to determine who does and who does not want it so continued; so we must ask to be informed on the subject.

The following is just such a notice as we wish all would send who desire to have it continued without intermission. Then we put this mark, "‖Jun 81," after the name on the wrapper label, and when so marked we do not stop sending the JOURNAL until we receive an order from the subscriber to do so.

> "Please continue my JOURNAL right along; if I do not send the money on the day it runs out I do not want you to stop it, for I want every number as soon as it is published. I will send you the money just as soon as I can make it convenient to go to the post office to get a money order. W. C."

Now, if all who desire it so continued would drop us a postal card, or mention it when they are sending a remittance, it would save us much trouble and themselves the annoyance of having the JOURNAL stopped.

* * *

Too Much Drone Comb. — Mr. R. P. Williams, of Goldsmith, Ind., asks the following questions:

1. How much drone comb should be left in the hive?
2. Will all eggs laid in drone comb hatch drones?
3. I have some very nice combs which contain all drone cells; how can I keep the drone brood out of it, or shall I cut it out?
4. How many queen cells ought to be left after dividing, in the colony that has no queen?
5. Is it the fault of the queen, or the bees, that there is too much drone comb? Do the bees make the comb, whether she is a drone-laying queen or not?

1. As little as possible, if you are running for surplus honey.

2. Yes.

3. Do not, under any circumstances, leave more than two drone combs in a hive—one at each outer side of the brood chamber; better, however, cut it up and put it in the surplus boxes, and supply its place with good worker foundation.

4. It matters not how many; the first queen emerging from a cell will look after the remainder.

5. At the time of honey-gathering, if obliged to build new combs at the outside of the brood-nest, the bees quite frequently construct it with drone cells. This is *one* of the forcible arguments in favor of the use of comb foundation. Of course, when bees are determined to have drone cells, they will build them, even though they have to cut away worker cells to get room to do so; but, as a rule, drone comb can be almost entirely excluded from the hive, by using good worker foundation, to be given no faster than they can work it out. If it is desirable that the queen occupy it, place it alternately in the centre of the brood-nest; if desired for honey-storing, then place at the sides of the brood-nest next the hive.

* * *

Law against Adulteration in Illinois.

The Legislature, just before adjourning, passed the following law against adulteration in Illinois. We hope it will not be allowed to stand, "a dead letter on the Statute Books of the State." It should be strictly enforced:

The law provides that no person shall mix, color, stain, or powder, or order or permit any person in his or her employ to mix, color, stain, or powder any article of food with an ingredient or material, so as to render the article injurious to health or depreciate the value thereof, with intent that the same may be sold; and no person shall sell or offer for sale any such article so mixed, colored, stained, or powdered; that no person shall, except for the purpose of compounding in the necessary preparation of medicine, mix, color, stain, or powder, or order or permit any other person to mix, color, stain, or powder any drug or medicine with any ingredient or material so as to affect injuriously the quality or potency of such drug or medicine, with intent to sell the same, or shall sell or offer for sale any such drug or medicine so mixed, colored, stained, or powdered; that no person shall mix, color, stain, or powder any article of food, drink, or medicine, or any article which enters into the composition of food, drink, or medicine, with any other ingredient or material, whether injurious to health or not, for the purpose of gain or profit, or sell or offer the same for sale, or order or permit any other person to sell or offer for sale any article so mixed, colored, stained, or powdered, unless the same be so manufactured, used, or sold or offered for sale under its true and appropriate name, and notice that the same is mixed or impure is marked, printed, or stamped upon each package, roll, parcel, or vessel containing the same, so as to be and remain at all times readily visible, or unless the person purchasing the same is fully informed by the seller, of the true name and ingredients (if other than such are known by the common name thereof) of such article of food, drink, or medicine, at the time of making sale thereof or offering to sell the same; that no person shall mix oleomargarine, suine, butterine, beef fat, lard, or any other foreign substance, with any butter or cheese intended for human food, without distinctly stamping, marking, or labeling the article or package containing the same with the true and appropriate name of such article, and the percentage in which such oleomargarine or suine enters into its composition; nor shall any person sell, or offer for sale, or order or permit to be offered for sale, any such article of food into the composition of which oleomargarine or suine has entered, without at the same time informing the buyer of the fact, and the proportions in which such oleomargarine, suine, or butterine, beef fat, lard, or any other foreign substance has entered into its composition:

Provided, That nothing in the act shall be so construed as to prevent the use of harmless coloring matter in butter and cheese or other articles of food; that any person convicted of violating any provision of any of the foregoing sections of this act shall, for the first offense, be fined not less than $25 nor more than $200; for the second offense he shall be fined not less than $100 nor more than $200, or confined in the county jail not less than one month nor more than 6 months, or both, at the discretion of the court; and for the third and all subsequent offenses he shall be fined not less than $500 nor more than $2,000, and impisoned in the penitentiary not less than one year or more than 5 years; no person shall be convicted under the foregoing sections of this act if he shows to the satisfaction of the court or jury that he did not know that he was violating any of the provisions of this act, and that he could not, with reasonable diligence, have obtained that knowledge; the State attorneys of this State are charged with the enforcement of this act, and it is hereby made their duty to appear for the people and to attend to the prosecution of all complaints under this act, in their respective counties, in all courts.

* * *

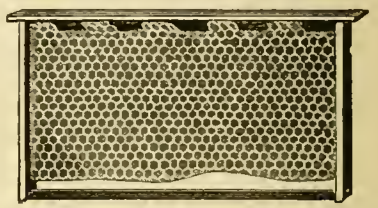
Methods of Using Foundation.

We frequently receive inquiries similar to the following, from parties who have been more or less annoyed with foundation breaking down, etc.:

> I am perplexed—almost out of humor. I fastened the foundation on to the frames, as I supposed, according to law (pressing down with a putty-knife), but it does not stay. As I opened the hive of a swarm two days old, the other night, I found three sheets of foundation lying on the bottom of the hive. I was vexed; I resolved to go to headquarters for information. Now, will you please give in the next issue of the BEE JOURNAL full directions for fastening foundation on the frames? Give full directions for handling foundation. Is it best to fill the frames full, or will starters two or three inches wide serve to keep the combs straight? Nothing is more provoking than crooked combs in a colony of bees. I wintered in the cellar, had good luck, and bees are doing nicely now, with plenty of clover and rain. I examined a swarm one week old Saturday, that was nearly full of nice comb, honey and brood; will put on surplus sections this week. J. M. A. M.
>
> Galva, Ill., June 13, 1881.

We can only answer the above questions by giving our way of using it, and referring to some of the methods practiced by others, but will recommend no particular plan for fastening it, for the reason that practice and painstaking has much to do with acquiring facility and perfection in anything pertaining to the internal economy of the hive, and we do not wish to provoke any discussion with those who have derived satisfaction from a plan differing wholly or in part from ours.

We use Langstroth frames with a V-shaped top-bar; the foundation is just as wide as the inside of the frame from the bottom-bar to the lower point of the top-bar, and is one inch shorter than the frame from end to end. When ready to use a set of frames, the foundation is placed on clean paper, evenly piled, with the straightest edge next the operator; now with a sharp knife make four incisions or cuts half an inch long down through the foundation to the paper, and at equal distances from each other and the ends; with the hands placed at each end of the pile, turn up the two end-cuts with the thumbs, and proceed to the center, which is also turned up, now lift the sheet clear from the pile and turn the two remaining cuts or flaps in the opposite direction; lay the sheet down with the top edge nearest you, place the frame with the lower or sharp edge fitting closely to the joints formed by alternately bending up and down the flaps, and press the foundation to the top-bar with the thumbs, drawing to you. When warm and the wax quite pliable, the work is very speedily and effectively performed—scarcely requiring more than ten minutes for a full set of frames. The foundation will reach within half an inch of each end-bar and the bottom-bar, and give ample room for the bees to pass from side to side. Of course, a greater number of cuts will do no harm except to take up more time. With good foundation we have never had any breaking down, warping, nor sagging to any appreciable extent. The engraving will give a comprehensive idea of the appearance of a sheet of foundation ready for the hive.



Many bee-keepers use a top-bar with a tongue or in-set projecting below its surface, to which they fasten the foundation by pressing with a putty-knife. Others lay the edge of the foundation along the tongue, and fasten by tacking a thin strip of wood over it. Melted beeswax and rosin is used a great deal, with which the foundation is sealed to the top-bar. Split top-bars are used by many, and possess some advantages over most other kinds. These, however, necessitate considerable labor, as the nailing down of the top-bars cannot be completed till after the insertion of the foundation.

Starters two or three inches long will not always insure straight combs, but, of course, are much better than empty frames; but with a good article, full sheets are much more satisfactory.

In hiving swarms, if very strong, we would throw them on full sheets and a full complement, to prevent concentrating too much weight on a few; but if building up, then give full sheets, in the centre of the brood-nest, only as fast as they can use it.

* * *

☞ On page 2 of the first number of the Weekly BEE JOURNAL, "M. B." had an article on "Fertilization in Confinement," and promised a full description of the cage used, etc., during the present year. Mr. Louis Hofstatter has waited patiently, but says he has now become very anxious to hear from the experiment, and asks us to call on "M. B." to "rise and explain." He must remember, however, that so far we have had but little suitable weather for such experiments, and must *wait with patience*, and give time sufficient to make several experiments, for such only will be of any value to the science and art of bee-keeping. Slip-shod experiments and hasty conclusions are always deceptive and undesirable. Let all wait until the experiments are completed, and then, doubtless, all will receive the coveted information, or else a full explanation concerning the failure. We can well afford to *wait*.

AMONG OUR EXCHANGES.

LONDON JOURNAL OF HORT.

Capturing Bees that were lodged in Stone Walls.—Mr. Frank R. Cheshire gives the following incidents, showing how colonies in inconvenient places may be dislodged and made to enrich the apiaries of their captors:

The double wall formed part of an old structure, and through the aperture, the result of decay, the swarm had evidently entered, and had utilized, as we afterwards found, an interspace only 4½ inches wide from front to back. A bricklayer was employed to cut out the front bricks, to lay the colony open to view, and this work acted like the hive-beating in driving, completely quieting the bees, which made no resistance to the removal of their comb. The bricklayer was not a bee-keeper, and so it soon became expedient to remove the bricks myself, lifting out the honey-combs as it was possible to free them. These I found about 3 feet 6 inches deep, and supported at intervals by cross bricks, but unfortunately, as we came upon the brood-combs, the queen retreated, with the greater number of bees, into the recess beyond reach. All the brood-combs, by cutting, trimming, and fixing into frames, were made ready for the hive, but the inhabitants, except the very young, flew from them and returned to the wall. The queen was not with us, while nearly all the bees were with her, and quite inaccessible, unless so much of the wall was to be removed as to endanger its safety. In the dilemma we fixed the frames with their brood-combs as nearly as possible in true position, and in the spot the brood had previously occupied, nailing up over all a large gardener's mat.

So soon as quietude was restored, the bees, with their queen, returned to feed and warm their young. The next morning the mat was lifted with as little disturbance as possible. The insects were discovered closely clustered, putting their plundered house in order. The hive to receive them stood against the wall just under their old entrance. Frame after frame was lifted down, the queen, in due course, making her descent with the rest. The few bees that took wing soon learned the position of their comrades, and the colony was established in its new quarters with but very little loss, and yielded its owner a fine super at the close of the summer. The main point of interest rests in the manner of capturing the queen by restoring for a time the combs, to which she will infallibly return, when their second movement is too rapidly and quietly accomplished to give her a chance of eluding us.

But to our second case. The 3 or 4 colonies in the roof of Much Hadam Church, the descendants doubtless of one, had behaved so badly that further forbearance was impossible. A swarm was sent out on the morning of a confirmation, and, audaciously entering the church window, clustered on the ornament not far from the pulpit, and one reckless bee from this cluster committed the sad indiscretion of stinging a bishop. This sealed their doom, and not long after ladders were raised, and your humble servant was peering down between the slates, as the saucy insects were traveling in and out through 4 or 5 openings. The master builder in attendance came to give directions, but a gust of wind, common to such altitudes, nearly carried away his hat. His rapid movements in preventing this catastrophe produced a worse, for 5 or 6 bees, which regarded this quickness as a menace, took aim at his uncovered scalp and caused him to retire discomfitted. A practical breach was soon made, and then pailful after pailful of honey-comb, which at length fairly filled a large saucer bath, was the first instalment of the booty. The brood-combs followed; but as before, the bees retired and had to be gained by the expedient previously explained. While the queen and retinue were returning to their old quarters, so as to make their final dislodgement easy, the extractor was set to work upon the comb honey, and soon 60 lbs. of splendid honey was freed from wax and pollen. After the final removal of the bees the following morning, the hollow in which this colony had existed for several years was, by my order, filled with coke previously saturated in carbolic acid. This last substance emits an odor so disgusting to the genus Apis, that no fresh swarm is likely to choose this spot as a dwelling place.

◆

MISCELLANEOUS.

Comb Foundation for Surplus Honey.—Mr. Dougherty, in the *Indiana Farmer*, remarks as follows:

The merits and demerits of the use of foundation for surplus honey has been under discussion since its first introduction, and although at first there was good grounds against its use, with the improvements of the last few years, it has become a success, and with one or two exceptions, is used extensively by most of our practical bee-keepers. We have experimented extensively in its use, and do not hesitate to recommend it for use in the surplus boxes, not alone a strip in the top of the section as a starter, but that the sections be filled quite full, giving the bees a good start, insuring straight combs, and in much better shape than where the bees are allowed to build the comb at will.

☞ A French paper relates that at a village near Florenville (Luxembourg) a gentleman, walking along beside a wood, saw some bees swarming on a straggling branch of an oak tree. He went to fetch a hive, and returned, with a wood-cutter named Guiot, who climbed the tree, and sitting astride of the branch, cut off the extremity of it upon which the swarm hung. An unexpected result followed: instead of falling to the ground, the swarm dispersed, and, raising like a whirlwind, settled on the head of the unlucky Guiot, who was still sitting on the branch, 45 feet from the ground. The bystanders shuddered. Surely, they thought, he will be seized with giddiness, and tortured by a thousand stings, he must fall to the ground. But Guiot called up all his strength of mind, and remained until the swarm had formed 2 long wreathes hanging from his temples, and waving as he moved; then half blinded by the insects, which also covered his face and body, he contrived to descend from his elevated position, taking the greatest care not to irritate this living mantle. When he arrived on terra firma a hive was placed on his shoulder, but 3 hours elapsed before the bees would take possession of their new home. When this happy change was effected the poor wood-cutter's wild delight testified to the intensity of the anxiety and discomfort he had endnred.

The Season in England.—The editor of the *British Bee Journal* remarks as follows on the honey season in England:

If the past month of May has not been all that could be desired, it has, on the whole, been a charming one and a vast improvement on many in preceding years. The usual "break" occurred in the middle of it, but did not continue as long as former experiences led us to expect, and, excepting that the nights have been cold, the bees have been doing well. Swarming is late, which perhaps may be accounted for by the excessive labor of the bees in honey gathering, many of our hives being less populous in the third than in the first week, a glut trom the orchards being available before they had made sufficient headway in the brood-nest, and the loss of life by overwork great in proportion. In gardens where no bees are kept there is the usual complaint that the early fruits are dropping off, and the frosty nights and blight are blamed as the cause, but the absence of bees is doubtless the true one, while others are described as "shy." Our gooseberries hang "like ropes of onions," the blossoms having had ample fertilization—a fact well worthy of careful attention by those who grow fruit for profit.

Bee-Keeping in Texas. — The *Land Register*, Boerne, Texas, remarks as follows:

Bee-keeping, from a very small beginning, is receiving considerable attention in Kendall county. That the business is a profitable one all agree who have given it attention. The returns are very large in proportion to the outlay of capital and time; the seasons and wild profusion of honey plants are all that is necessary to insure success to those bee-keepers who are prepared by needful industry and intelligence to make the most of the business. As an illustration of what can be done with bees in this country, Mr. Moore, of Llano county, took in one season, from one hive, 230 lbs. of honey, which, at 20 cents per lb., would net $46 on an investment of less than $5.

Extracted vs. Comb Honey.—As to which kind is the most profitable to produce, Mr. Dougherty, in the *Indiana Farmer*, remarks as follows, and at the same time indorses the views of the BEE JOURNAL. He says:

As to which kind will pay the best depends upon how it is to be sold, wholesale or retail, distance to market, etc. You can produce ⅓ more, good well ripened extracted, than you can of comb honey, and when you have a good home market, at retail, extracted honey will bring within a few cents as much per pound as comb honey. Where honey has to be shipped long distances, extracted honey will undoubtedly pay the best. The freight is cheaper. The loss from breakage and leakage is much less. Extracted honey is growing in favor rapidly, and in the near future comb honey will be in little demand. In creating a home demand it is well to produce both kinds, and as the trade increases supply that which gives the best satisfaction. In producing extracted honey caution is necessary in not extracting unripe honey and in extracting so much as to rob the bees of necessary stores. Some bee-keepers practice extracting the honey as fast as it is gathered, but honey in this condition lacks the fine flavor that belongs to a good article of extracted honey, and is liable to ferment and sour. None but a thoroughly good article should be produced and placed on the market, as the price will depend upon the quality you offer. You should only produce extracted honey that is equal to the very best article of comb honey. It is but little trouble to secure a crop of honey, when the extractor is judiciously used, during an ordinary honey yield, whereas at times it is almost impossible to make the bees work in the surplus boxes.

Marketing.—In a short time the honey crop for 1881 will be ready to put upon the market. Particular attention is invited to several good articles on the subject of marketing in the most desirable and profitable manner, which have lately appeared in the Weekly BEE JOURNAL. The *Grange Bulletin* remarks that "for small retail packages, tin pails with close-fitting covers are the best. Purchased by the gross or in quantities of 1,000 or more, the price is so inconsiderable that no consumer will object to paying what they cost in addition to the price of the honey, for they are so "'handy to have in the house'" that not one housewife in a hundred would wish to return the pail."

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☞ Sometimes a noble failure serves the world as faithfully as a distinguished success.—*Dryden*.

SELECTIONS FROM OUR LETTER BOX

The Clovers.—Yes, Syrian is the word, if only for the sake of euphony. "Holy" is too Oriental, and seems half sacrilegious when used in this way. Bees are doing well here, since we had a shower or two. White clover is very abundant, but in front of my window is a meadow of mixed white and red clovers and there are 5 or 6 Italians on the red clover to-day to one bee of any kind upon the others. Lately I visited Mr. Jesse Ridings, of Whitehall, Ill., who had a field of mixed red, white, and alsike clovers, and there were 20 Italians on the alsike to one on any other bloom. He had also a patch of very thrifty melilot, sown last year, but it was not yet in bloom. Have killed all my black queens but one; have bred Italians, and have them laying instead of the blacks. WM. CAMM.

Murrayville, Ill., June 6, 1881.

The Prospects in California.—Some time ago I wrote a letter to the BEE JOURNAL, stating how good the prospect was for surplus honey. Now the thing is changed. A month ago some of my neighbors told me that the bees were killing their drones. Having but few drones, I had no surplus and my bees were leaving them alone, but now I observe occasionally a drone being lugged off. Many of my bees have stopped breeding, and commenced again within a few days. Very late frosts have killed what bloom we had, and now the bearbush or hawberry, is commencing to bloom and honey is coming in, and queens laying again. I have obtained but little surplus and very little comb honey, equalizing most of my colonies. I increased from 58 to 81 strong colonies, but unless more honey is gathered, I shall have to feed back and rear queens in the fall. Queen-rearing, for the present, is useless, unless one wants them to starve and get the bees to robbing. All my colonies are full of bees, but they have very little honey, and only a little brood. One colony had a good proportion of brood in 6 out of 10 combs, and good sage honey to live on through the drouth, which will be on us after the bearbush is through blooming. I notice a great many dead bees about the bush while in bloom; it appears that the bees gorge themselves and are too weak to take their load home; the bush is swarming with bees during the bloom. What colonies survive the drouth, soon fill up with fall honey, from the golden rod and decaying fruit. Bees do not destroy fruit, but save the juices after birds and yellow-jackets have punctured it. I have watched and seen them leave the santa rosa bloom because they could not bite through the base of the flower, where the honey is. The tube being long only humming birds can sip the honey. By pulling the tube and sucking it one can taste the honey. The locust in this vicinity was a failure, giving no bloom to speak of.

Napa, Cal. J. D. ENAS.

Encouraging.—Bees are doing finely, swarming, filling sections and rearing brood. I got through the winter with 13, bought 10 in Alabama, and had 6 large swarms. The fields, road sides and commons are white with bloom. I have 3 acres of alsike clover near my bees; they worked on the alsike about a week before they did on the white clover. Basswood will have a very heavy bloom; the buds are just formed.

J. H. THORNBURG.

Manchester, Ind., June 10, 1881.

Testing Cyprian Queens.—Will some breeder of Cyprian queens inform me how I can tell whether my Cyprian queens have mated with Cyprian or Italian drones, where all are reared in one yard? I have 43 colonies of fine Italians; 32 are storing surplus now. The Weekly BEE JOURNAL is indispensable to any *live* bee-keeper.

S. E. O'NEEL.

Dupont, Ind., June 14, 1881.

Bee Stings.—I am an attentive reader of the Weekly BEE JOURNAL, and as long as I have a colony of bees, I should be sorry to have to do without it. I am very much interested about bees, but am rather afraid that nature did not intend me for a bee-keeper, for it gives me so much inconvenience when I am stung. There seems less difficulty in protecting the face by means of a veil than in knowing the best way to protect the hands. I fancied myself safe till yesterday, by wearing a rather thick pair of brown kid gloves, but in handling the frames without having previously smoked the bees, I was stung on one of my fingers, from which my whole hand is still quite swollen and painful. For some time the inflammation extended all the way up my arm. Perhaps you will say if I am so susceptible to the poison of the sting I had better keep clear of bees. Prof. Cook says that people soon become inoculated and feel every sting less, but I shrink from the idea of that process. Would you advise me to get a pair of rubber gloves? I have seen it recommended to wear white cotton gloves, but should think they would be no better protection than kid. I only have one colony; lost 2 last winter; packed one in chaff and the other in shavings.

H. F. BULLER.

Campbellford, Ont., June 11, 1881.

[Rubber gloves are better than kid, because it is more difficult for a bee sting to go through them. It would be more pleasant, as well as safer, to smoke the bees if they are so cross, and thus prevent them from attacking you.—ED.]

The Weather, Cause of Losses, etc.—Are the fates combined against us poor fellows, that are trying to cultivate the sweets of nature? It appears as if something that is beyond the power of mortals, is trying the endurance of us poor bee-keepers; the elements, at least, are not propitious for the replenishing of our monuments of departed sweetness—rain, rain, thunder and lightning and rain, with a little sun occasionally, just for an aggravation, that we may know that there is one. The white clover is just in its splendor, large and full, and plenteous, but the rains descend and the floods come, and our bees stay, like sensible beings, in out of the wet, getting ready for a grand rush bye-and-bye—a sort of spitting on the hands, like, waiting for the word go—when the weather makers say "now," and I wish they would soon, for my hives are running over with bees, gathering a little honey, just enough to keep soul and body together, a sort of a hand-to-mouth living; but I suppose it is the best they can do, considering how Prof. Vennor and the rest of our weather-makers are running things, and, as Novice says, I don't understand it. By-the-way, what new idea is he going to advance this year? Almost everyone will have some new idea to advance as to the fearful mortality among the bees, but how many will profit by their past experience? and among us all, who has the right way to winter bees? and unless we judge by their success can we take their way as being the right one? I never wintered bees any better than last winter. From Nov. 15 until April 17 they had no flight, and yet I only lost 4 from 51, that I put up right, and 3 of those starved, through my own neglect. I had 6 that I took extra care to have in a correct condition, according to authorities, young bees, extra good queens, good sealed honey, and a plenty of it, 3 packed in 6 inches of chaff on the 6 sides, and 3 with the same amount of dry pine sawdust on 5 sides, and a 6 inch thick blanket of chaff on top, and they all went over the bridge together, for chaff or dust did not save them, not a one. This spring I found the combs moldy and bees mostly on the bottom of the hives, with honey in store—so I think I have exploded to my satisfaction, at least, that out-door chaff-packing *is* chaff, as far as the successful wintering of bees is concerned, and is not the correct way to do. Our friend, Lowmaster, of Belle Vernon, Ohio, appears jubilant about having a swarm of bees the 29th of May, and gives his opinion that it cannot be beaten North of the 40th parallel. You know it is not always safe to laugh as hard as you can at the first story, for something may come funnier. Well, I had a strong new swarm on the 31st, but that does not beat his in time, although I am almost 1½° further north; but I had one the 25th, another the 27th, and have had several since, although his was a Sunday swarm (they are considered a little extra, you know, for then you have an excuse to stay home from church). Mine were 2 and 4 days earlier. Nearly all the bees have died the past winter in this county, within a radius of 12 miles, that I know of. Of 460 colonies, now less than 70 are alive, aside from my own, of which I lost 4 out of a lot of 51.

F. W. CHAPMAN.

Morrison, Ill., June 11, 1881.

Wintering on Cider.—The fall of 1880 came, but no honey crop; there were plenty of cider-mills, fruit-driers, vineyards, etc., all around here, and the bees stored a goodly amount of "choice wines and liquors," and were well fixed for a winter's debauch. Winter caught me with 5 colonies (1 black and 4 Italians). The blacks and one colony of Italians had about 7 or 8 pounds of honey, including their non-temperance drinks, each. I packed them all in chaff and made my second trial at wintering bees. About the middle of January, as a consequence of their intemperate habits, they all had the dysentery. By the middle of February the blacks had reaped the reward of inebriety, and "gone down to a drunkard's grave." They left behind them only empty combs and bloated carcasses. Toward the last of March the bees had their first chance for a flight since November, and 4 colonies only took advantage of the "let up" in the weather. The colony that went into winter quarters with 7 lbs., now had 3 lbs. I do not think that many cellars will cause the bees to winter on less than 4 lbs. The mortality of bees in this county has been very great, and I find myself (notwithstanding I left my bees packed in chaff on the summer stands) one of the lightest losers, both among cellar and chaff advocates. I would say to Mr. Townly, that he may, if it will benefit anyone, inform his correspondent that I apply the chaff above, below and on all sides, whole and unadulterated and that it will not cause dysentery, if the apiarist will only keep it dry, and if any of his friends will drop into my modest apiary, I will show them a hive that will, every time, winter the bees out-of-doors as well as they will winter in a cellar.

F. L. DRESSER.

Hillsdale, Mich., June 13, 1881.

Swarming.—I have wintered 7 colonies in chaff hives (Langstroth), without loss, while so many have lost all their bees. I purchased 15 colonies of blacks in March, transferred them early in April to Langstroth hives, making my number 22, all in good condition for business. As I preferred natural swarming to dividing, I at once clipped one wing of all the queens; I purchased a lot of Dunham foundation, gave one frame of it to each colony, every 5 days, until every hive was full. I arranged all my hives in a hexagonal figure, consisting of 44 hives. My first swarm issued May 18; I was ready with cage in hand; the queen was about the last to leave the hive. I picked her from off the sawdust, put her in the cage, put a hive filled with foundation in place of the old one, placed the queen in front of the new hive; soon the bees missed their mother, and came back to look for her. The hive was black with bees, and I let the queen out of the cage and all was over. I have now 43 colonies, all having swarmed but one from which I removed the queen, in order to get cells, in order to Italianize as I go along; and this is the way I did it: Allowing 16 days for a queen to hatch, my queens hatched June 1, at which time my bees had swarmed; as fast as they swarmed I cut out all the black cells and introduced an Italian cell; by June 2 all my Italians were hatched. I purchased a fine tested Italian queen, and all the queens were from her, and they are beauties. The 7 I wintered were Italians; of course I depend on them for the drones. With my honey knife as sharp as I could get it I went to my black colonies every 6 days and clipped the heads of all the drones that were capped. By repeating the process above stated I have not a black drone in my apiary, and none very close to it, and my young queens stand a good chance for a pure impregnation. In all the swarming I lost only one queen, which I failed to catch on coming out, but she flew to the hive, just in front of one that had swarmed the day previous; I gave the new swarm a cell instead of the old queen. There is one great trouble with swarming as above mentioned: the bees on returning would try and get in any hive they could, until I was compelled to close all the entrances when a swarm issued. Has any one had similar troubles with swarms?

Poseyville, Ind. J. F. KIGHT.

Winter and Spring.—The long, cold winter has passed away, and with it most of our bees. I commenced the winter with 23 colonies; I intended to pack them in straw and chaff, but was unavoidably prevented. I left 15 of the heaviest out without protection, except a bank on the north that broke the force of the wind, and during part of the time they were under the snow; 8 of the lightest I buried in a pit out of the reach of frost; of these 5 came out with live bees in them, but 2 were very weak, so that I united them with one of the others, one I have lost since from queenlessness; out of the 8 I have but 2 good colonies left. Of the other 15 I have 5 good colonies left; one cast a good swarm on the 5th, which makes 8 colonies, at present, in good condition. The loss of bees was heavy here, the past winter, but the spring has been very favorable for what came through to build up, and they are generally in good condition now. Bees are getting some honey from white clover, but we have never got any surplus from that source yet. The prospect for basswood is good, of which we have an abundance. As to the cause of our disasters in wintering I cannot indorse Mr. Heddon's theory. Mr. Doolittle expresses my views, exactly. I like the Weekly BEE JOURNAL, and intend to renew, so as not to miss a number.

L. G. PURVIS.

Hartford, Iowa, June 13, 1881.

White Clover Short.—Bees are building up very slowly. White clover is not more than half a crop, so far, owing to severe spring drouth. We have had fine rains during the past few days, and I hope for a good crop of honey. I am much pleased with the JOURNAL; wish you and it success.

G. W. JENKINS.

New Liberty, Ky., June 9, 1881.

Spring Dwindling.—My loss of 9 out of 18 colonies occurred during the first part of April—the worst time for bees I ever saw—they are now in good condition. My best Italian colony supplied 2 full frames of capped brood to help build up those weak. I have had a large natural swarm, and now have 18 two-lb. boxes nearly filled with honey. White clover is abundant. There is at least 1,000 acres to every colony of bees near here.

PHILIP P. NELSON.

Manteno, Ill., June 10, 1881.

Grafting Wax.—Can any of the readers of the BEE JOURNAL give a receipt for grafting wax, that the bees will not gnaw? My orchard surrounds my apiary, and the bees trouble it very much in this way. I would like a receipt that is *not* composed in part of beeswax, if any such is known.

Glensdale, N. Y. N. F. CASE.

Good Prospect for Honey.—Basswood is full of buds, and there is plenty of honey in all the flowers. My first swarm came out on June 6; I have 30 colonies, and 2 young queens laying. I bought 10 colonies for $50. Some of them had brood in every comb. The cause of bees dying last winter was dampness, cold, long confinement, breeding too soon in winter quarters, and being put out too early.

FAYETTE LEE.

Cokato, Minn., June 11, 1881.

Do Bees ever get to be a Nuisance?—In your No. 23 Mr. Heddon asks for information relative to the above subject. Our Iowa "code" defines a "nuisance" to be "whatever is injurious to health, or indecent or offensive to the senses, or an obstruction to the free use of property so as essentially to interfere with the comfortable enjoyment of life and property," and when found to be a nuisance under the above definition may be enjoined or abated. Under the last clause of the section above quoted it would seem that bees might, at times, be included. If my neighbor owns and operates a sugar refinery, and I keep adjacent thereto a large apiary, to his annoyance, discomfort or disadvantage, I do not see why the bees could not be declared a nuisance just as a stinking hog pen, kept within easy range of his olfactory nerves, could. I do not know of a case where the question of damages by bees has arisen in our courts, but I do not see why they should not be controlled to the extent of not interfering with our neighbors' rights, as well as any other class of property. While we are supposed to have a right to life, liberty, and the pursuit of happiness in our own chosen vocation, and the enjoyment of property, we are not to deprive another of the same right. Our individual rights ought to be subservient to the public good, and if we cannot pursue an occupation without injury to our fellow citizens, we ought to choose some other business. If bee-keepers would also keep the Golden Rule in their hearts, and when so unfortunately located as to cause annoyance or discomfort to their neighbors, whose occupations attract the bees, if they would endeavor to do right, very little complaint would be made.

EUGENE SECOR.

Forest City, Iowa, May 13, 1881.

Died of Dysentery.—I lost about 80 per cent. of my bees. I had them packed on their summer stands; they were confined too long and died with dysentery. They are doing well now; beginning to swarm and working in sections. I wish the BEE JOURNAL success.

HIRAM J. WARD.

Farmington, Kan., May 8, 1881.

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
Bee-Keepers' Magazine (A.J.King)	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50	2 35
The 6 above-named papers	5 75	5 00
Kansas Bee-Keeper	2 25	2 50
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T.G.Newman)	2 40	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept.— —National, at Lexington, Ky.
--Kentucky State, at Louisville, Ky.
Oct, 11, 12—Northern Michigan, at Maple Rapids.
12--Ky. State, in Exposition B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Coopersville, Sec.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 15@18c. for strictly choice white comb in 1 and 2 lb. boxes; at 10@12c. for common dark-colored and broken lots. Extracted, 7½@9½c.

BEESWAX.—Choice yellow, 20@23c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 14@17c.; dark 11@12; large boxes 2c. less.—White extracted, 9@10c.; dark, 7@8c.

BEESWAX.—Prime quality, 20@25c.

CINCINNATI.

HONEY.—The market for extracted clover honey is good, at 8@10c. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY.—A few cases of new, both extracted and comb, have arrived—not enough to attract anyone but a retail buyer. Large offerings would not be apt to solicit much attention from canners just now, as they are busily engaged on fruits. Stocks of old extracted are firmly held.

We quote white comb, 12@14c.; dark to good, 9@11c. Extracted, choice to extra white, 6@7c.; dark and candied, 5@5½c. BEESWAX—21@25c.,

STEARNS & SMITH, 423 Front Street.

San Francisco, Cal., June 9, 1881.

SPECIAL NOTICES.

☞ Single copies of the JOURNAL are sent postage paid for 5 cents each.

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☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

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☞ When changing a postoffice address, mention the *old* address as well as the new one.

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☞ The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for $1.50.

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☞ We have prepared Ribbon Badges for bee-keepers, on which are printed a large bee in gold. Price 10 cents each, or $8.00 per hundred.

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☞ Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

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Many Lose Their Beauty from the hair falling or fading. Parker's Hair Balsam supplies necessary nourishment, prevents falling and grayness and is an elegant dressing. 22w4

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☞ Constitutions and By-Laws for local Associations $2 per 100. The name of the Association printed in the blanks for 50 cents extra.

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☞ We can supply but a few more of the back numbers to new subscribers. If any want them, they must be sent for soon.

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☞ Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

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☞ Sample copies of the Weekly BEE JOURNAL will be sent *free* to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

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☞ The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, *always* send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

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PREMIUMS.—For a club of 2, *weekly* we will give a copy of "Bee-Culture;" for a club of 5, *weekly*, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

◆

☞ At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

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☞ It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

An Old Lady writes us: "I am 65 years old and was feeble and nervous all the time, when I bought a bottle of Parker's Ginger Tonic. I have used a little more than one bottle and feel as at 30, and am sure that hundreds need just such medicine." See advertisement. 22w4

15 DOLLARS WORTH OF BOOKS FOR $1.

Wishing to introduce our books and show their size, style of binding, etc., we have decided to make the GRANDEST AND MOST LIBERAL OFFER OF THE CENTURY, for a short time.

☞ We will send the ten books described below, by mail, post-paid to any address, on receipt of $1. and for twenty-five cents extra, sent at the same time, will include one year's subscription to FARM AND FIRESIDE, the leading agricultural and home journal of the world.

PARTICULAR NOTICE.—We reserve the right to withdraw this Dollar Offer at any time, therefore subscribe at once if you want these TEN BOOKS FOR ONE DOLLAR, and tell all your friends we have made the grandest offer of the century.

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LIFE and ADVENTURES of ROBINSON CRUSOE. This well-known book may be ranked as the most popular standard juvenile book ever printed. Our edition is complete, and contains the wonderful adventures of a cast-away upon a desert island. Complete in one vol. Fully illustrated.

THE PILGRIMS PROGRESS From this world to that which is to come. This remarkable book, as every one knows, was written under the similitude of a dream, by John Bunyan, the most popular religious writer in the English language; and perhaps more copies have been sold than any other book except the Bible. Our edition is complete and unabridged, with appropriate illustrations.

GULLIVER'S TRAVELS. This book tells of the supposed travels and surprising adventures of Lemuel Gulliver into several remote regions of the world, where he met with a race of people no larger than your hand. Also his wonderful exploits among giants. Complete in one volume. Finely illustrated.

THE ARABIAN NIGHTS' ENTERTAINMENTS. Illustrated with numerous wood engravings, descriptive of those many strange and singular stories which the legend says the Sultaness of Persia related to the Sultan night after night, in order to prolong her life, and thus finally won his affections and delivered the many virgins, who but for her would have been sacrificed to his unjust resentment.

SAVED AT LAST FROM AMONG THE MORMONS. Every man and woman in the land should read this story which is founded upon facts, and gives an insight into the low estate of woman under the Mormon rule.

BREAD AND CHEESE AND KISSES. By B. L. Farjeon. A very popular Christmas story after the style of Dickens; abounds in excellent and novel features; is chiefly remarkable for its admirable picture of country life, giving the history of a very happy and contented young couple who thought no lot in life too lowly for the pure enjoyment of Bread and Cheese and Kisses. Complete in one volume, with illustrations.

JOHN PLOUGHMAN'S PICTURES; Or, More of his Plain Talk for Plain People, by Rev. Chas. H. Spurgeon. This book is exceedingly humorous and instructive, using the simplest form of words and very plain speech. To smite evil, and especially the monster evil of drink, has been the author's earnest endeavor. The humor and homely wisdom of this book should carry it into every household. Complete in one volume—containing a great number of pictures.

NEW FARM AND FIRESIDE COOK BOOK. BEST COOK BOOK EVER PUBLISHED. Contains about 1,000 Recipes. It is just the book that every wife and housekeeper needs. It tells how to cook all kinds of bread, cakes and meats; it tells how to make all kinds of soup; it gives recipes for cooking fish, oysters, poultry and game; it tells how to select the best poultry, fish, meats, etc.; it gives the best methods of preparing sauces and salads and all kinds of vegetables for the table; and tells the housekeeper all she needs to know about bread, biscuits, rolls, puddings, pies, custards, creams, cookies, tea, coffee, chocolate, home-made candies, antidote for poison, cooking for the sick, and many other useful things.

ÆSOP'S FABLES. The fables of Æsopus, an apt representative of the great social and intellectual movement of the age which he adorned. Born a slave, he forced his way by his mother-wit into the courts of princes. He knew that to be tolerated in courts he must speak to please, and he gave lessons both to prince and people by recitals of fables, which were very popular in Athens during the most brilliant period of its literary history; and he who had not Æsop's Fables at his finger's ends was looked upon as an illiterate dunce by Athenian gentlemen. In one vol. Very profusely illustrated.

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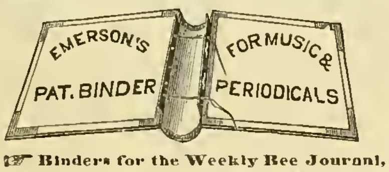

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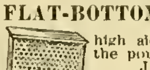

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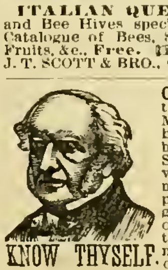
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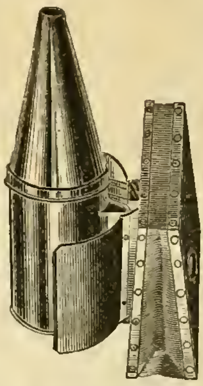

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OLDEST BEE PAPER IN AMERICA

THE AMERICAN BEE JOURNAL

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CORRESPONDENCE.

For the American Bee Journal.

The Cause of Bee Dysentery.

C. J. ROBINSON.

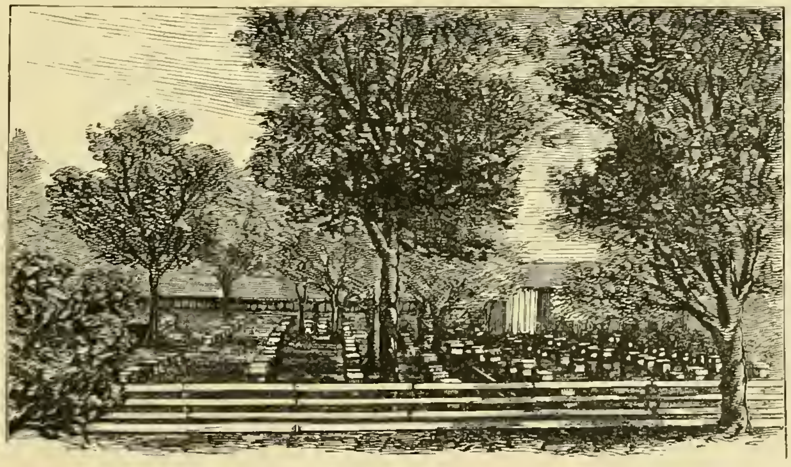
The length of time during which bees can bear confinement without inconvenience, depends greatly on circumstances. They may endure it 4 months or more, wholly uninjured, or they may be ruinously affected, if shut in only a few days—according to the nature of the food and the amount consumed, the dry or damp state of the air they respire, or the degree of cold to which they are exposed. When they are kept quiet in a uniformly moderate temperature, the consumption of food and consequent accumulation of excrement will be small, and prolonged confine- will not discommode them. But when the honey they consume in the winter is thin and watery, and has remained unsealed in the cells, the consumption will be greater, the accumulation of excrement more rapid, and its retention more difficult. And if the quality of honey is unsuitable the bees feed on pollen (all stores of farina ought to be taken from colonies before going into long confinement), dysentery is the inevitable result. So, also, where the colony is subjected to frequent disturbance, rousing and exciting the bees, or the changes of temperature are freqeunt and great, or the general temperature in which they are kept is very high or very low, similar consequences ensue, especially if there be a superabundance of moisture in the hive.

Exposure to cold and hunger will be followed by dysentery, and if, immediately after gorging themselves with honey, bees be placed in a temperature of 50° to 55°, they will certainly be subject to dysentery within 24 hours. It is difficult to say whether this results from an infection of the intestinal canal, or whether the instinct of the bees has simply been at fault, permitting involuntary evacuations.

It has been supposed that from atmospheric causes dysentery sometimes assumes an epidemic character, affecting the apiaries in a wide range of country. Such was the case in Lusati, Germany, in 1840, when more than 3-5 of all the colonies there were destroyed. Ehrenfels recorded the destruction of an entire apiary, consisting of more than 300 colonies, by dysentery, resulting from the consumption of unsealed viscid honey, gathered from pine or fir trees. This contained only a small proportion ot saccharine matter, in a large mass of crude and indigestible substance. Poor honey, with bee-bread, produces no injury, if consumed when the bees can fly freely, because they are then able to evacuate their excrement, but confinement while they are restricted to such diet, proves disastrous. Pure honey seems to be "the staff of life" for bees and their larvæ. Pollen, if they have it, forms a useful condiment for both mature bees and larvæ, but both can do without it. They are certainly wrong who say that pollen is indispensable to the raising of young bees, and that it is consumed exclusively by the larvæ. Abundant brood has been raised by experiment while they were shut up on new combs, and fed on refined sugar syrup, when they could not get a grain of pollen from any source. That bees consume new pollen greedily in the spring, as an acceptable change from their old stores, is proved by its cathartic affect on them, as they soil their hives and combs badly for a few days after an abundant yield of early pollen, when they are smoked or disturbed in the least, and the discharge is largely undigested pollen. Dysenteric discharges during the winter are the same thing, proving that bees consume pollen in the winter, and it is evident that pollen is the chief cause of this disease. You may confine bees till they die, on nice comb honey without a cell of pollen, and they will show no appearance of engorgement, and, if released, there will be no discharging, but if you introduce pollen plentifully, they become filled, and if you let them have a flight they drop large, colored discharges.

The disease called May sickness is not dysentery, but constipation, though it also results, in some cases, from the consumption of bad honey. Fecal matter accumulates in the intestines and rectum, accompanied by an inability to evacuate, resulting from the sluggish condition of the viscera. Breeding bees appear to be particularly liable to this disease. We find them leaving their hives and crawling about on the ground, unable to fly, and with the abdomen inordinately distended. It rarely happens that any considerable number are thus affected at one time, though some are found, every season, in colonies that are populous and have much brood.

It is sometimes thought to be caused among the breeding bees or nurses, by excessive consumption of honey and pollen, and prolonged through voluntary confinement.



Apiary of Mr. J. H. Robertson, Pewamo, Michigan.

For the American Bee Journal.

Wintering of Bees in Canada.

P. P. N. E. PELISSIER.

On Nov. 2, 1880, I put 12 colonies in a dry, sandy cellar. On March 8, although the weather was rather cold, I put them out and they had a good cleansing flight. In the evening I put them back in the cellar, where they remained very quiet until I took them out for good, April 20, when one of the colonies was queenless, and the other bees robbed it. In the evening of the 23d I removed it to the stand of a very strong colony, contracted the entrance, and put the strong colony on the former stand of the queenless one. Next morning the robbers had a grand reception, in fact, they could not stand the warm embrace of their hosts, and they left, much to their chagrin, but they soon found the new location of the queenless colony, and were making sad havoc with the combs. In the afternoon I gave the queenless colony a frame of brood from my Palestine colony, with what bees were adhering to it. These holy bees, who had perhaps helped the robbers, now took possession of the hive, drove out the robbers, including the natural owners of the hive, and at last that handful of Palestine bees remained in possession of the hive. On the afternoon of the 25th I transferred these plucky little fellows to another hive, because their number was too small to constitute a colony.

I also wintered 3 colonies on the summer stands; they came out all right, but the strongest colony starved during a cold spell from the 28th of April to May 8; they had a lot of young bees, eggs and brood in all stages. I transferred the capped brood to another hive and it was saved.

The hives that I put in the cellar are 2 story, made of lumber 5-16 of an inch thick, 8 frames in the lower story and 7 in the upper one; the frames are 10 inches high and 15 inches long inside; the cap is 12¼ inches deep, and completely covers the upper story and laps over the lower one. I can secure more honey with bees in this hive than any style I know of. By removing frames of sealed brood, and the outside frames which are generally partly filled with honey to the upper story, it leaves plenty of room for the queen to deposit eggs, and I believe it stimulates the bees to greater exertion, for as quick as the bees hatch they fill the cells with honey. I never extract until the combs are at least ⅔ sealed.

The winter hives are made of ⅞ inch lumber throughout; there is one inch space between the double floor, sides and caps, which is filled with the best oat chaff; the front and rear, in addition to the space filled with chaff, have a division board 1½ inches from the inner wall, which forms a chamber to receive a frame, where bees will store surplus honey very readily. The division boards at the front and rear are the supports for 11 other frames, which run from front to rear; all of these frames are 12 inches deep and 15 inches long; 13 frames in each hive, 11 one way, and 2 across.

In the fall, by taking out the front and back frame, it leaves a dead-air space of 1¾ inches front and rear, and by taking out a few frames from each side and inserting division boards, it leaves a dead-air space all around.

For 2 years I wintered 7 colonies without further protection, and without loss, except what dropped on the snow when they flew out. Last fall I put a chaff cushion on the top of the frames, and a board inclined over the door, which I covered with straw, to prevent too frequent flights, but that was needless for the cold did not abate from Oct. 20 to March 7. On March 8 I took off the straw from the entrance, but the bees did not come out, for the air was still chilly, These bees had no flight till April 12; I did not put back the straw at the entrance after taking it out on March 8. The total loss in wintering the 15 colonies was less than a pint of bees.

I am confident that Palestine bees will winter better than blacks, because they do not gorge themselves with honey when disturbed. You can judge of the strength of my colonies when I destroyed capped queen cells in 3 colonies on May 12; on May 14 I destroyed capped queen cells in 4 more; the other colonies had queen cells containing eggs and full grown larvæ. Once a week I destroy the drone larvæ in my Italian and black colonies, for I want to keep only a pure race of Palestine bees.

On June 4 I began to rear Palestine queens. I have now a fine lot of drones (from imported queens) flying, but I did not want to rear queens before this month.

This year promises to be better for honey than last; although we are getting considerable rain there is a fair flow of honey; in a few days we shall have hundreds of acres of red raspberries in bloom. One of my colonies has already stored 53 lbs. of honey, which I consider excellent for the Province of Quebec.

Over 50 per cent. of the bees in Ottawa Valley will never buzz again; not one bee-keeper in a hundred is up to the times, simply because they do not read the Bee Journal. Long life to it and to its editor.

Pelissier, Quebec, June 3, 1881.

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For the American Bee Journal.

The Prospect for Honey and Prices.

J. H. MARTIN.

Let us look the facts squarely in the face and we will find that the tendency will be toward lower prices. In 1880 the bee-keepers of our country had full apiaries, and every hive was teeming with workers, but our honey yield was only a third of a crop, on account of the unfavorable weather for honey production. We had many predictions that the price of honey would advance, but when the market opened in the fall the quotations remained about the same, with little, if any, improvement over the previous year, when we had an abundant yield.

The same predictions are made again because over 50 per cent. of the bees are dead. There might be some basis for a hopeful view if the honey crop should be short, but every indication points to an abundant yield. It would, therefore, have been necessary to have lost over $\frac{2}{3}$ of the bees to make any difference in the price of honey. If the loss had been 75 per cent. all over the United States there might be a slight prospect of better prices, for then our glucose *friends!* would have to pay a little more for our honey in order to get enough to adulterate. We never saw the prospects for honey better than at present; our fields are white with clover, and our strongest colonies are filling their surplus combs quite rapidly. Basswood, in a few weeks, will fill the air with fragrance. Young trees on our "Linden avenue" that have been set out 7 years are laden with buds. If the weather is favorable nothing can prevent there being as much, if not more honey put upon the market than in 1880. Therefore I can see no prospect of better prices.

Hartford, N. Y., June 14, 1881.

[Nevertheless we can see no reason for changing our opinion expressed on page 172.—Ed.]

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For the American Bee Journal.

Dysentery as a Bee-Disease.

WARREN PEIRCE.

After a careful perusal of the various reports and theories presented in the Bee Journal, and a study of conditions and results in my own apiary, and those of my neighbors, I fail to find any evidence supporting the theory that the trouble is caused by "bacteria," and none to support the starvation theory advanced by an able apiarist.

For the purpose of drawing out a further discussion of the subject, and, if possible, acquiring additional knowledge on this important question, I will offer a few facts which have come under my observation.

In the fall of 1880 I had about 40 colonies, but owing to protracted illness, they were not properly prepared for winter, and only 5 survived. Two of the 40 I wish to notice. The first was a strong colony with ample stores of choice clover honey. They died from the worst case of dysentery I ever saw, leaving 30 to 40 lbs. of good sealed honey in the hive. It was not starvation. It was not poor honey.

The other, scantily supplied with stores, mainly gathered late in the season, and through carelessness left without honey-board or chaff-cushion above them, but having an empty rack for sections making an open air space of 1,600 cubic inches over the bees, and protected by the ordinary Langstroth 8-inch cap. They came through far the best of any I had, never having a symptom of dysentery. I attribute the whole difference in the wintering of the two to upward ventilation; the first had none, the last most ample.

Two other bee-keepers in this vicinity report cases like the last named, where the honey-boards were left off and the bees had no protection overhead but the empty cap, and the colonies are the best they have this spring. Another had a piece of common sheeting, which the bees had cut full of holes, laid on in place of a honey-board, and still another hive which stood on a hillside was so low that water would run in at the rear, across the bottom-board and out at the front, when a thaw occurred, and yet, as I believe, owing to no honey-board, but a case in its place full of empty sections, that colony had no dysentery, but was in good condition, except one or two moldy combs. I could name other similar cases, but these are sufficient. Will not others who can furnish any evidence either for or against this theory of the cause, or a factor in the cause of this malady, do so, as in this way much good may result.

Garretsville, O., June 16, 1881.

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From the Home Journal.

Transferring Bees from Box Hives.

G. W. DEMAREE.

Transferring bees from box hives and bee gums is an operation well understood by skillful bee-keepers, and should be understood by those who only keep a few colonies, and give the subject but little study. Anything that is worth doing at all should be well done.

The old plan of "driving bees" from one hive to another, when a change is desirable for any cause, forcing them to desert their young (the most valuable part of the colony), is not only barbarous, but is attended with much uncertainty. If the queen chances to go with the bees, and the honey season is favorable, all may work well. But if the queen is contrary and refuses to leave with the bees, as is very frequently the case, the new colony will be left queenless and without eggs or larvæ from which to rear a successor, and the experiment will be a failure. These dangers are avoided by transferring the combs containing all the eggs, larvæ and sealed brood with the mature bees. If the queen should be lost in the operation, the colony is in precisely the same condition they would be in if a swarm had issued in the natural way from their home.

Transferring bees is a very simple operation after you get the hang of it. Of course there are many methods of proceeding, every one of which has its advocates. Without giving the several methods, all of which will generally give success, I will describe the operation just as I perform it with universal success. The tools necessary are a good bee smoker, hatchet, and a thin, strong cold chisel, a long, thin-bladed knife, a ball of wrapping twine (such as is used by hardware men), and a small bunch of quill feathers. Thus armed I approach the colony to be transferred, and give the bees some smoke at the entrance, and wait a little while for them to fill themselves with honey. I now move the hive from its stand, turn it upside down, set a box on it, and with a small hammer knock sharp and quick on it—keeping up the knocking first to one side and then to the other, for 15 or 20 minutes—when the queen and the greater part of the bees will have ascended into the box, which is set on the old stand to catch the flying bees. I now cut the combs loose from one side of the hive, and with the cold chisel cut the nails and pry off one side of the box. I next remove a comb, and lay it on a broad plank or table; lay the frame on it and cut the comb so that it will just fill the frame, and fasten it with the twine by wrapping it over the top-bar and under the bottom-bar of the frame, drawing it tight and tying it. If the comb is straight, one band at each end of the frame will hold it till the bees fasten it to the frame; hang the frame in the new hive, and proceed in this way till all the worker combs that are fit for use have been transferred to the frames. The combs containing brood should be placed in the center of the hive, all together. If there are not enough good combs to fill the hive, fill with empty frames. Now brush all the young bees that may be sticking to the old hive and refuse combs into the new hive, and cover the frames with a quilt or honey-board. Then remove the box from the old stand, and put the new hive in its place, and proceed to "hive" the bees from the box into the new hive just as you would do if hiving a new swarm that had issued in the usual way, and the work is done. I transfer quite a number of colonies every spring in this way, and have never made a single failure.

Christiansburg, Ky.

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For the American Bee Journal.

Wintering Bees in Minnesota.

WM. FRITZE.

In the question drawer of the North Eastern Convention, as given in the Bee Journal of March 2, 1881, I notice the following question:

Will it pay to construct an inner box just large enough to hold combs to winter 5 Langstroth or 5 Quinby frames, that will set in the main hive, the object being to carry just what is needed to the cellar, instead of the main hive; they can also be used for nucleus hives in summer? *No.*

I should say yes; but how are we to do it in the Langstroth hive, unless it is 18x20 inches inside, and that will be considered too large, by many, but it is none too large to hold 3 pecks of bees. I think a peck of bees with 7 or 8 frames of brood is a good colony. I use the Langstroth frame as well as one 9x13 inches; the hive to hold the latter frame is 17 inches from front to rear, $9\frac{5}{8}$ inches from side to side, and 14 inches deep; for extracting I use it 2 stories high, and it takes 24 frames crosswise, 12 below and 12 above. For this hive I have a nucleus hive, to winter in the cellar, and must say I like it. The nucleus hive is $9\frac{5}{8}$ inches from front to rear, $7\frac{1}{2}$ inches from side to side, and 14 inches deep. This hive can be put into the main hive in early spring, and in the fall, when it is time to put them into the cellar, I take it out and can get away with it nicely. This nucleus hive holds 5 frames, and it is very seldom that I cannot get them on these 5 frames, when I put them in the cellar; they will winter well, and need no flight in 6 months, till pollen is plenty. They generally cover these 5 frames in the spring, and are ready for business. They also winter well in the Langstroth hive (I use both side by side), providing a good colony is put on 4 Langstroth frames, they will, once in a while, cluster outside on the entrance, and that is just what I like. I do not mean to say that none of my bees died in winter, but I never have lost a colony in the winter or spring. Last winter, when I saw no bees on the floor of my cellar, I thought there were none dying, and still I heard some come out, but I could see none on the floor, so I set some mice traps and caught over 2 dozen, and after that I saw bees on the floor; the mice ate the bees as they came out, and perhaps that is the reason why bee-keepers think no bees die in winter.

My bees never breed much after September; about October I crowd them on about 5 of my frames (or 4 Langstroth frames). I leave a space of $2\frac{1}{2}$ inches between the nucleus and main hive, for the bees to cluster; in the Langstroth hive they get on the other side of the division boards, and by the middle of October or November they are all in, when I put them in the cellar. My bees never get the dysentery, and I have to keep them in the cellar 6 and sometimes $6\frac{1}{2}$ months, without a flight.

My bees never breed in winter, but when I put them out in May they have a little brood, so they are about 8 months without raising much brood, and still they do well. Some say: "Feed your bees in September; if they rear brood they will build up strong for winter. My experience is opposed to this plan. If the bees are rearing brood in August or September I let them alone, and if they are not strong enough for wintering, I unite them with weak ones. If they have a young queen, in October, and cover 2 Langstroth frames of sealed honey, they are good enough for me, and will cover these two frames in May and give as much honey as any others, but no increase.

Duluth, Minn.

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For the American Bee Journal.

Dysentery Once More—Its Cause.

E. B. SOUTHWICK, M. D.

Some time ago, when traveling in a strange country, I put up for the night at a small town, and learning that there was a physician there that doctored as I did, I called on him and found him sick "even unto death," as he supposed. The doctors had said he could not live until morning, the family had become resigned, the minister had made his last prayer with him, and everything was arranged for his final departure before the dawn of another day. I asked to examine him, to which they consented, and after doing so and asking a few questions, I told him that without a murder or an accident he could not die before morning; and what was more, he was not really sick; that there was no disease about him. He inquired where I was from; I named the college that I graduated at. He had confidence in their teachings, and asked my advice. I told him when bed-time came to go to bed, have his family do the same, and extinguish the lights as though there had never been any sickness in the house, and rest until morning and he would feel like a new man. He asked me to call in the morning before I left; I did so. He was sitting up eating his breakfast and said he followed my advice to the letter, and he really felt like a new man. The doctors, as I learned afterward, laughed at my presumption, but the man recovered. Now we have bee-doctors from the North, South, East and West who know all about this dysentery; though they disagree with each other, they will all agree in laughing at my presumption.

I think my statement of April 7th was not properly understood. The bees did come out, or how could they spot the hive on the outside? The rain destroyed the honey in the flowers, but did not prevent their coming out. The other swarms made at the same time, that had honey, did not have the dysentery. When I gave honey to those that did have it, they did not fly out any more than before, but they recovered from the dysentery. I looked for the cause, found it (no honey), gave them the remedy, and they recovered. But if it was a flight they wanted, I did wrong; I should have taken out the bees, frames and all, carried them a little way off, and shook and brushed the bees until I made them fly, and then return the bees to the hive; but I did not do that way.

I notice with me (and my conclusions are all drawn from my own observations), that swarms made up from different hives are very quiet, hardly coming out of the hive at all, unless forced out by the want of honey for several days. The old bees return to the old hive, and the young ones stay in the hive to care for the brood. The excitement of making up swarms of Italian bees in this way is hardly noticeable; after the old bees leave, the remainder are as contented as though they had not been removed.

Last fall I took some Italian bees to the fair; I placed a comb with some bees and a queen in a glass case. They were closed up 3 days and 4 nights. Being a novelty there, they were handled in all shapes to get a sight of the queen and the yellow stripes on the bees. They were near the organ stand, where music and tumult was the order of the day. They showed no signs of dysentery, though worrying through the day to get out. Bees are confined and transported hundreds of miles without producing dysentery. But I do not wish to write of what does not produce the disease, but what my own observation convinces me *does* produce it.

In looking over my bees and cleaning out the hives. I found every dead colony without honey. My hives are so arranged that when well packed the bees can go to any part, as they pass through the center of the combs. I found that those bees that were on the bottom and scattered between and hanging to the combs, not in them, were less in bulk than those found in the cells. I also noticed that the amount of filth on the combs and hive was always in proportion to the amount of bees out of the cells. That was so regularly the rule that when I opened a hive I could easily tell if I was going to have a long job there to get the bees out of the combs, as the bees in the combs were always so crowded with their feces that it was not only a slow, but a very nasty job. And here let me tell how I did it. I would turn the top-bar down and rap on the side of it, when most of the bees would come out or protrude so I could pull them out with my fingers. My conclusion from the above is this, that the bees not in the cells are those that die first, and before they die they crawl around, discharge their feces on the combs or hive, and thus are less bloated by them. In some hives I found the bees all huddled together in among the combs, and just here the cells were filled with bees. In this case the hives and combs would be clean, and I concluded that at the time of their death, and before, it was so very cold they could not move. In these the bodies were alike filled with fecal matter.

I will give my version of the cases mentioned in the BEE JOURNAL in criticising my belief, and for which the editor has my thanks, for I deem it a kindness in a man to attempt to convince me if he thinks I am wrong, and a great favor if he gives me real reasons why I am wrong. Bees die with plenty of honey in the hive. This was partly answered in my last article, but I will say that those stupid bees that have not life enough to work their way down into the cluster starve, and before they die they crawl over the combs and discharge their feces; the next under them will do the same, and the last will be found in the combs over which the bees had concentrated, and still there may be plenty of honey that these nearly dead bees have crawled over and besmeared. Again, bees that have the dysentery are cured by a flight out-of-doors or in the house. If a colony has been in so long that some of the most stupid bees have died with dysentery, there will be many more that are too stupid to work their way to the uncapped honey, but if the whole colony can be effectually stirred up, either by an out-door or in-door flight, it will give those half-starved bees a chance to get at the honey and be restored, and all will have an equal chance again, as when first put up in the fall. Again, bees that have been confined for shipment, either queens or colonies, die with or have the dysentery. The first thing the bees of a colony do when disturbed is not to fill themselves as claimed by some, but to rush out and defend themselves; they will fill themselves when subdued. Now, I believe some bees when confined will commence to worry and try to get out, and continue to do so until they die, and these will not touch food until they die; some will worry themselves to death before starvation produces dysentery, others do not, but have the dysentery, daub up their hives or cage, then die.

Dr. Howard, in his article of the 24th of April, says that the dysentery my bees had was caused by confinement. Now, if one of my horses should die in the field on a pleasant, clear day, and somebody in Boston that knew nothing of the case should write me that the horse was struck by lightning I should not believe it, neither will I believe that confinement caused the dysentery in my bees. for confinement was as far from them as lightning is from us in a pleasant day. The Doctor speaks of those stupid bees. If he is a practising physician, he knows that it is a common thing for a revival to come just before death, in which the patient will be quite strong, and then sink away and die; this may be the case with the bees. The Doctor's experience and mine with starved and dysentery bees are exactly the opposite, but as this is not the first time doctors have disagreed, we will agree to disagree. But who shall decide? Your own experience, reason and knowledge of facts; and remember that one known fact is worth more than the opinion of all the doctors in the world.

I notice that Messrs. Doolittle and Heddon are discussing the subject, and I think they are both more successful in destroying each other's theory than in establishing their own. But this is always the case where both are wrong. I have as much confidence in safely wintering bees as I ever had; but well packed in such a hive as mine, with plenty of honey, will stand even such winters as the past. I believe mine would have been all right if there had been honey.

One case more and I will stop: In taking off the top cushions to see which bees were dead and which were not, on opening one hive I thought all were dead, but my son, who was with me, said he thought he saw some stir. We separated the combs and found some bees that could move just enough to show they were not entirely dead. I told him I would sweeten their last moments; covered them up, went to the house and melted some sugar in honey and water, cooled it to blood heat, and turned in among the bees and on the frames about a teacupfull, and covered up the hive. At night I looked at them again and found they had licked it all up clean, and they looked up at me and said just as plain as bees could say anything, "Have you any more of that stuff? if you have, bring it on." I fed them that way three times a day until I could safely clean out the hive and put in combs of honey. They had the dysentery, were cured with honey, did not fly, and are now filling up with brood as fast as any.

I have three rules for wintering, follow them and you are safe: 1. The colony should be fair-sized, healthy, and not very old; 2. They should have all the good healthy food they need, and not any more; 3. They should be so protected as to be at all times comfortable. Follow these rules and bid defiance to dysentery and spring dwindling.

Mendon, Mich., May 9, 1881.

[We have carefully perused the above ably written article, but can find nothing to substantiate the Doctor's theory. Aside from the cases we have heretofore cited, we could easily refer to scores of others which have convinced us that, as a rule at least, starvation is not the prime cause of dysentery.—ED.]

* * *

For the American Bee Journal.

Bee-Keeping in Mississippi.

O. M. BLANTON.

I closed the season of 1880 with 401 colonies, left on the summer stands, after a most discouraging crop of honey; amounting only to about ¼. I was discouraged and did not give the weaker colonies the necessary attention, and the result was a loss of about 50 colonies from starvation.

After uniting the weak and queenless ones, I commenced the spring with 340 colonies, in excellent condition. All the combs of the dead bees I used for storing surplus honey. I shipped Mr. Muth 25 colonies, which left me 215 to commence with. I use the Langstroth hive, so arranged as to use either 3 section boxes of 8 frames each, or 10 Langstroth frames in the upper story, which enables me to work for comb honey early in the season, when white clover is in bloom, and extract altogether after the first of August, when all of our comb honey is too dark for marketing.

To save my extra combs from the moths, I commenced quite a number of my hives, with the Langstroth frames in the upper story, which has paid me well in extracted honey. Brood was stored in some, but they were useful in building up others. I have now obtained 2,000 lbs. of extracted and 200 lbs. of comb honey.

The season has been very encouraging until within the last 10 days, when heavy rains with low temperature prevented the secretion of nectar. I have all my colonies this year located in one apiary, and will test, to that number, the question of overstocking.

We have the white clover still in full bloom, which will continue until July. The "swamp woodbine," which yields an immense amount of honey, is just commencing. There is scarcely a tree or plant here but what yields more or less; even the bloom of the cottonwood trees were swarming with bees, but in all probability they only obtained pollen.

There is no necessity of preparing bees here for winter, except to furnish them with a sufficient amount of honey. Packed with chaff or hulls of cotton seed is advantageous for brood-rearing. I prefer 10 frames in the brood-chamber, as they can all be occupied by the queen, by the use of the extractor and judicious spreading. With separators I have failed. I approve of Mr. Heddon's views in regard to them. I never use foundation more than ⅜ of an inch wide, extending the entire length of the top bar, and seldom have over 3 per cent. of comb unfit to pack in shipping cases.

Our greatest enemies are the red bee-martin (*Tanagra æstiva*), the king-bird, or Pitcherry of the West Indies, and Toads.

Next to California, the alluvial lands of the Mississippi River will produce the greatest amount of honey, which is merely a question of time. Bee-keeping here is barely in its infancy.

Greenville, Miss., June 6, 1881.

CONVENTION
NOTES

Missouri Convention.

The Missouri State Bee-Keepers' Association met on the call of Mr. P. P. Collier, Vice-President of the North American Bee-Keepers' Society, and organized by electing Dr. F. A. Grove, of Kirksville, temporary chairman, and Wm. Douglas, of Audrain County, Secretary. A motion was made and carried that the permanent organization be deferred until Friday morning, to accommonate some expected visitors.

The next thing in order was the reports from the bees.

Wm. C. Hamilton, of Audrian, reported 87 in the fall, 54 in the spring, lost 33, increased 3.

Judge S. M. Edwards reported 16 in the fall, 12 in the spring, loss 4.

P. P. Collier reported 9 in the fall, 8 in the spring, loss 1.

Dr. F. A. Grove reported 31 in the fall, 16 in the spring, loss 15.

Dr. E.C. L. Larch, of Ashland, reported 110 in the fall, 109 in the spring, loss 1.

W. A. Douglas reported 2 in the fall, 2 in the spring, no loss.

After a general talk on the various causes of mortality during the last 2 years, the Convention adjourned until Friday, June 3, at 10 a. m.

On Friday morning the Convention convened, and on motion P. P. Collier was elected President of the Missouri Bee-Keepers' Society; Dr. F. A. Grove, of Kirksville, Secretary; Jno. B. Snyder, Treasurer; and Dr. George Hamilton, of Callaway, Corresponding Secretary.

The following Vice-Presidents were elected for their respective counties.

Adair—Dr. J. D. Pearce, Kirksville.
Audrian—Wm. French, Martinsburg.
Callaway—John Sallee, McCredie.
Boone—Dr. E. C. L. Larch, Ashland.
Pettis—J. M. Thornton, Georgetown.
Johnson—A. A. Collier, Knobnoster.
Livingston—Dr. J. W. Greene, Chillicothe.
Cass—Paul Duncan, Harrisonville.
Montgomery—Jno Slayter, Wellsville.
Benton—J. Smith Head.
——J. S. Duncan, Browning.
——A. L. Seaval, Kansas City.

The Fresident will appoint Vice-Presidents for other counties.

The Committee reported a constitution and by-laws, which were adopted, giving as the name, "Missouri Bee Keepers' Association."

On motion the next meeting of the Association will be held at such time and place as the President may, after consulting the bee-keepers of the State, think best to suit all parties concerned.

On motion, Dr. J. W. Greene, of Chillicothe, was elected a delegate to the National Association, with P. P. Collier and Paul Dunken as alternates.

A communication from Dr. E. C. L. Larch, on "Queen-Rearing," was read and ordered placed on file. Also one on "In-and-in-Breeding," by P. P. Collier.

On motion, it was agreed that the President and Secretary assign members various subjects for discussion at the next meeting.

On motion, the proceedings of this meeting be published in the BEE JOURNAL, and the Bee and Agricultural papers of the State.

On motion, the Society adjourned to meet at the time and place hereafter designated. P. P. COLLIER, *Pres.*
F. A. GROVE, *Sec.*

* * *

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., October 11 and 12, 1881. DAVID EISHELMAN. *Pres.*
O. R. GOODNO, *Sec.*, Carson City, Mich.

* * *

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both :

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)		..$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00..	2 75
Bee-Keepers' Magazine (A.J.King)..	3 00..	2 60
Bee-Keepers' Exchange (J.H.Nellis).	2 75..	2 50
The 4 above-named papers.........	4 75..	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50..	2 35
Bee-Keepers' Guide (A.G.Hill).......	2 50..	2 35
The 6 above-named papers.........	5 75..	5 00
Kansas Bee-Keeper...................	2 25..	2 50
Prof. Cook's Manual (bound in cloth)	3 25..	3 00
Bee-Culture (T,G.Newman)...........	2 40..	2 25

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

* * *

Local Convention Directory.

1881. *Time and Place of Meeting.*
Sept.— —National, at Lexington, Ky.
 —Kentucky State, at Louisville, Ky.
Oct, 11, 12—Northern Michigan, at Maple Rapids.
 12—Ky. State, in Exposition B'd'g, Louisville, Ky.
 W. Williamson, Sec., Lexington, Ky.
 27—Western Mich., at Berlin, Mich.
 Wm. M. S. Dodge, Coopersville, Sec.

☞ In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

* * *

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotable at 15@18c. for strictly choice white comb in 1 and 2 lb.boxes; at 10@12c. for common dark-colored and broken lots. Extracted, 7½@9½c.

BEESWAX.—Choice yellow, 20@23c; dark, 15@17.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 14@17c.; dark 11@12; large boxes 2c. less.—White extracted, 9@10c.; dark, 7@8c.

BEESWAX.—Prime quality, 20@25c.

CINCINNATI.

HONEY.—The market for extracted clover honey is good, at 8@10c. Comb honey is of slow sale at 16c. for the best.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY.—Receipts this month have been exceedingly light, we might say insignificant, verifying reports regarding a light crop. During the first three weeks of June last year about 1,500 cases were received. The market is firm, with no demand for new at this moment. There is a marked difference between prices just now obtainable and the prices at which stocks are held, although a few buyers are bidding better prices on old lots. For one straight lot of old extracted 7½c. has been offered, and for the same 8c. is asked.

We quote white comb, 12@14c.; dark to good, 9@11c. Extracted, choice to extra white, 7@8c.; dark and candied, 5@6c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., June 18, 1881.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., JUNE 29, 1881.

The Care of Comb Honey.

Mr. John Crawford asks the following questions: "Will you, through the BEE JOURNAL, inform me how to take care of comb honey? What kind of a house, temperature, light or dark, dry or moist, should be used?"

The following is good advice on the subject from one of our most successful comb honey producers: "Filled sections or boxes that have been removed from the hives, should be examined every few days. If the combs show signs of worms, the honey must be fumigated with sulphur. Care must be taken not to give them too much, or it will discolor the honey, giving it a greenish cast. The amount used will depend, of course, on the size of the room or box you are using. It requires but very little of the fumes of sulphur to destroy life either animal or vegetable. Fumigation will not destroy the eggs, so it may be necessary to give them a second dose, after all the eggs have had time to hatch. By close watching you will be able to discover the worms before they have done any material damage. They are very small at first, but you will notice their presence by seeing a small thread-like streak of a mealy looking substance on the cappings or around the edge of the combs in the partly filled cells. Comb honey should be kept in a warm, dark place. It should never be allowed to stand where the sun will shine directly on the combs, especially when behind glass. The cappings will soften in a very few moments and settle down on the honey, giving it a dark appearance. The object should be to keep the honey as white and clean as possible all the time. Comb honey will bring 2 or 3 cents more per pound, when nice and white, than that of the same quality in soiled or discolored packages."

☞ This number of the Weekly BEE JOURNAL completes the first six months of its existence. We are more than pleased with the manner in which it has been received, and the welcome everywhere accorded to it.

Several thousands have only subscribed for six months, and their subscriptions expire with this number. To all such we desire to remark that by sending on their renewal *at once*, they will not only prevent the annoyance, to themselves, of missing the regular visits of their old friend—the Weekly BEE JOURNAL, but they will save us much trouble in taking their names off from our mailing lists, and then re-entering them within a short time. We hope all will renew at once or else send us a notice, by return mail, if they desire its visits continued.

☞ We have received from Saalfield's Music Store, 839 Broadway, N. Y., the monthly "Ten Cent Library of Music," containing 16 pages of the most popular music for 10 cents. It is astonishingly cheap, for the music is first-class.

Black Bees and Bee-Culture in Texas.

We have received the following letters and articles clipped from Texas papers. They will explain themselves as fast as read:

DEAR EDITOR: The following article was sent me from Texas, taken from a paper of that State, on the subject of bees. Perhaps you can give the people of Southern Texas some information on bee-raising, by making up an article from this little jocose piece for your JOURNAL. PORTER H. SNOW.

Bee-Culture in Texas.

The culture of honey-making bees is a new industry which has sprung into prominence in Texas within the last few years. The magnificent bottoms of the Brazos and Colorado rivers, carpeted with thousands of wild flowers, afford magnificent ranges for the honey bee, and several farmers in that section of the State, realizing this fact, have secured swarms of wild bees and, domesticating them, made money by the experiment. Quite a number of enterprising men have given it their sole attention, finding the industry vastly more profitable than cotton-raising. To make a success out of the business a person must have a talent for domesticating wild bees.

The wild bee is a small black institution, but fearfully loud, and, being chivalrous to a fault, he tilts at every one who intrudes upon his domain. The fellow who struck Billy Patterson, hit quick and hard, but Billy's eye never did look as bad as that of the man who has been boxing with a wild bee. The statement that they never sting but once, is false, as hundreds of persons who have enjoyed the fun of cutting down a bee tree will testify. The black bee skims along the surface of the ground feeding on the blossoms, but always with his rudder end in first-rate shooting order, and if there is a Sunday school picnic in the neighborhood, he will be there to participate and help on the fun. There is, no doubt, a great deal of money to be made by shipping thousands of gallons of honey to a market every year, but there is but little solid comfort in raising wild bees, whose only aim in life is to put a head on every mortal they get a chance at.

Mr. M. M. Camp, of Navasota, Texas, sends us the following article, also cut from a Texas paper, and adds: "Please publish and comment upon the writer's ignorance)." Here is the article:

THE BLACK BEE DEFENDED—ANTECEDENTS AND HABITS OF THE BUSY LITTLE WORKER.

Seeing an article, some time since, headed "Bee-Culture in Texas," I wish to defend the little black bee, which the writer so abused.

The black bee is a native of Africa. The first discovery made of the black bee was in the year 1342. In May, 1410, a small hive left the southern coast of Africa, and struck a due course for Cuba. In the same year, 1410, in the month of November, a hive of bees was found in the mountains of Cuba. In the year 1572 the black bee was very numerous in Cuba. The next year, 1573, they nearly all emigrated in the direction of North America. The first black bee that was ever seen in America was in the swamps of Lousiana, in the year 1575. This is fair proof that this was the same bee that left Cuba, for there were several hives found in one Colony.

Right here was the first instance we have of the black bee being handled. He fought desperately for a few years, but careful handling proved a perfect success. From that time up to the present time the black bee has been a favorite with bee-raisers.

I find, by experience, the black bee is worth more than any other bee. They can make more honey than any other bee, and at the same time can live on ⅓ less than any other bee. They are fine workers, protect their hives better, and live longer. In fact, they can live and thrive where other bees will starve to death. If my bees (the black bee, for I would not have any other kind) happen to be robbed too close, I feed them.

They will live through the winter on most anything. I feed on boiled corn, potatoes, bread, mush, turnips, pumpkins, slops from the dairy, dried apples or peaches boiled down, or old wet brown sugar mixed with dough. Anything of the above kind will keep the black bee through the winter. I have seen my bees 5 miles from home; they are not afraid to leave home like most bees. My bees seem to know me; they will fondle around me when I am about them.

I have now on my premises 385 hives in fine condition. I have got them so completely under my control that all I have to do is to make gums or hives and set them up above the hives, so when a new hive comes out they go into a new box, gum or hive, as you are a mind to call them. Will anybody show me any other bee that will do as much? I have been handling the black bee for nearly 50 years, and I find them to pay better than any others. The black bee has, on an average, 365 bees to the hive. Each bee will make, on an average, a half pound of honey a year. So a man can tell what he is doing. You can take at least ½ from them, then they will have plenty to keep through the winter. JAMES BRAKEN, M. D.

Mr. J. W. Henderson also sends the same extract, and remarks as follows:

Just think of it! Prof. Cook, in his "Manual" (of which we think so much) says that it takes from twenty to forty thousand bees to make a good colony—but this "M. D." asserts that it only takes 365 bees to make a good colony of his magnificent "black" stock. Let us send for Mr. Frank Benton; it is no use to try anywhere in the world to find such bees as this "M. D." has.

We thank our friends for sending us these extracts. Now that we have a flourishing Bee-Keepers' Association in Texas there is a fine opportunity to improve the Italian bees which we already have. Such progressive apiarists as Judge Andrews, Dr. Howard, Mr. M. M. Camp or Mr. F. F. Collins, will do well to get some of the unrivalled stock of "James Braken, M. D.," and cross them with the Italians, so that they may have 40,000 or more bees to the colony, and with this "cross" they can easily "beat the world."

"Just think of it"—"each bee will make, on an average, a half pound of honey every year—so a man can tell what he is doing," says the Doctor!

"Just think of it!"—with 40,000 to 60,000 bees in a colony we shall have the magnificent yield of from twenty to thirty thousand pounds of honey from each hive!

The Doctor says he has 385 hives—with this improved stock, and a yield of say 25,000 lbs. per colony, the Doctor will have a honey crop of nearly ten millions of lbs. each year, without counting on increase, for "a man can tell what he is doing," when each bee makes a half pound of honey each year!" Prodigious results! astounding revelation!! marvelous race of bees!!!

With such bees, and the additional extensive practice that an "M. D." of such erudition must command, the Doctor will soon be a millionaire, for that amount of honey alone would bring a million of dollars each year! Oh! "there's millions in it—millions in it!"

Unfortunately, our "M. D." has placed the date (1410) when his favorite stock of bees were introduced into this country before America was discovered! Columbus did not land till Oct., 1492.

His race of bees must be hogs—for he says he feeds them with "*boiled* corn, potatoes, bread, mush, turnips, pumpkins, slops from the dairy, dried apples and peaches *boiled down*, or old wet brown sugar mixed with dough." Either the Doctor is writing about some kind of hogs or he is a lunatic!

Again, he says he "makes *hives* and sets them up above the *hives* so that when a new *hive* comes out they go into a new *hive* or box." What supremely ridiculous nonsense! In the "backwoods" they sometimes get things very much mixed—something like that!

A *hive* is a box or house where a colony of bees reside; the *stand* is the place where the hive is located; the family of bees is, when organized, a *colony;* the bees leaving the colony with a queen to form increase, is a *swarm*.

One man will say that he has had to feed his *stands* (the frame that supports the box or hive); another that his *hives* (or boxes) flew away to the woods! How funny it would be to see boxes flying through the air!

Another that a new *hive* (or box) came out of his old gum, and settled up in the top of a tree!

Another that his *stands* (the framework or ground under the hive) all died last winter!

How necessary it is to use proper terms in order to be correctly understood by the common reader. The Doctor's foolish use of terms should convince all of the desirability of using correct names for everything appertaining to the apiary!

We lately heard of a man ordering "sash" from a supply dealer when he wanted frames; another ordered frames when he wanted section boxes, etc. Calling things by wrong names leads to endless trouble and vexation.

Test of Purity for Honey.—Mr. H. Richey, Sing Sing, N. Y., says he has made further tests with the receipt that we published some months ago, and now says: "I know I have struck the key-note. This test will not color syrup made from corn, potatoes, grapes, or any other glucose syrup, but will color honey. Some kinds of honey will turn darker than others, owing to the bloom from which it is gathered." This is the recipe: "I teaspoonful of honey put into a wine-glass, with about the same quantity of water to dissolve it; then put in a few drops of tincture of iron. This turns pure honey black."

Parthenogenesis.—W. B. makes the following inquiry: "Will the drones from a pure Italian queen be influenced if she is mated with a black drone? Please answer in the BEE JOURNAL." No; they will not. Huber, Dzierzon, Langstroth, Cook, Quinby, and, in fact, nearly all the learned modern bee authorities are united in this opinion. It is not even necessary that a queen should mate with a drone to enable her to lay eggs; but these will always develope into drones, no matter what kind of combs or cells they may be deposited in. Even the eggs laid by fertile workers, when hatched at all, are drones; but we are not fully convinced that these latter have power to properly impregnate a queen.

With this number several thousands of subscriptions expire, and we hope all will renew at once or else send us notice by return mail if they desire its continued visits.

Strange Bees, etc. — Mr. W. G. Mc Lendon, Lake Village, Ark., propounds the following questions:

1. How can I find the queen? I often look through the hive 3 or 4 times, and do not find her.

2. How can I prevent the moths destroying my empty combs?

3. From the following description can you give me the name of the bees? They are very small—one-third smaller than the black bees—with one broad yellow band just back of the thorax, the balance of the body is of a dull red color. They have worked remarkably well, filling their hives three times while my blacks and Italians filled but twice; they are very cross; the queens are short and plump, and very prolific, keeping the lower story of a 10-frame Langstroth hive full of brood. I bought them from a bee-keeper that wished to quit the business. Each of them cast a swarm, which are doing well. I do not think I ever saw more bees in a hive than are in my old colonies now, after swarming. I think they are a distinct race. I have looked carefully among my other bees, and can find none of these mixed in with them.

1. Move the hive a little to one side and place a duplicate on the stand, now carefully scan each comb and place in the duplicate, and the probabilities are that you will discover her; if not, transfer the combs back, looking carefully as you proceed.

2. Give them the sulphur treatment recommended on page 204, this number, in the article entitled "The care of comb honey."

3. We cannot name them; but think you are wrong in supposing them a distinct race.

* * *

☞ We haye received the Annual Catalogue of the Michigan State Agricultural College, which shows a very satisfactory condition of the affairs of the College. Among the means of illustrating the various studies, it mentions "An apiary, with specimens of Italian and Syrian bees, various styles of hives and honey extractors, and other approved apparatus; also noted honey plants—shrubs, trees and herbs." Such a College should be in every State, to aid progressive and scientific work.

* * *

☞ The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting Aug. 30, at Rock City, Stephenson Co., Ill. JONATHAN STEWART, *Sec.*

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Seasonable Advice.—Mrs. L. Harrison, in the *Prairie Farmer*, gives the following seasonable advice:

There is a magnificent bloom of white clover (*Trifolium repens*) in central Illinois, and, judging from the reports from different sections, must be general throughout the country. It is essential for the production of honey that there should be abundant bloom of the same kind at one time, yet a flow of nectar does not always follow these requisites. Nature's laboratory must be in right condition to secrete sweetness from the flowers, or the honey crop will be a failure. During the blooming of white clover, if a balmy south wind blows, following a hot night, we may almost with certainty expect a big yield of honey while these electric conditions continue. Since the advent of June the weather has been cold and wet, so that the production of honey from white clover has been meager. Occasionally for a few hours, when the sun would shine very hot, bees would do a good business. Those who have their "dishes right side up" when the flow of nectar comes will catch an abundance; hives that are full and running over with bees are the ones that will "make hay while the sun shines."

A large increase in the number of colonies, and a big yield of surplus cannot be obtained at the same time. If those bee-keepers who let their colonies swarm naturally will put back all swarms that issue but the first, their apiary will then be in fine condition to store surplus. The second swarm that issues is accompanied by a virgin queen, and if the queen cells are all removed from the old colony, and it returned, it will remain, as it then has no means of rearing another queen.

Many bees died last winter leaving hives full of comb, and if after-swarms are put into these, they will make good colonies before winter. By feeding at night, and also during cold and wet weather, the number of bees can be greatly increased.

* * *

Increase by Division.—An exchange gives the following advice concerning the increase of colonies by dividing:

Dividing bees when properly done is a much better plan for increase than to allow them to swarm naturally. But improperly done, has been the ruination of many an apiary, for it seems almost impossible to convince some people that success depends on the strength of the colonies and not numbers. The better plan is to wait until the bees are making preparations to cast a swarm, and then they can be divided with benefit. When you find they are making ready or have queen cells capped, then divide. Take a frame of honey, bees, brood, and the queen, hang in an empty hive, fill up with frames of comb or foundation. Move the old hive to a new location, placing the new hive containing the queen on the old stand, and the work is done. Nearly all of the old bees and those in the fields at work will return to the old stand, which now contains the new hive, and make quite a colony. The young hatching bees will soon fill up the old hive. The empty place from which you removed the frame of brood and the queen should be filled with a frame of comb or foundation, for if an empty frame be hung in place the bees will fill it with drone comb. This work should be done in the middle of the day when the larger part of the bees are in the fields. Nothing can be done for 7 or 8 days with the old hive. By that time they will have capped the queen cells; if the cells were capped at the time of dividing they will need looking after sooner than this. The queen will hatch in 15 days from an egg. When the young queens are ready to hatch, all queen cells should be removed but one; those removed can be used in nuclei previously prepared or be given to colonies divided a few days in advance of the hatching queens. If no other colonies are ready to divide, make nuclei by taking 2 or 3 frames of brood and bees from prosperous colonies and to them give the hatching cells. The nuclei should be made the day previous, as they will then more readily accept the cells. Young queens will hatch and become fertile while occupying these nucleus colonies, and can then be built up from other colonies or be given to divided swarms, keeping the old colony together and at work until the young queens are ready.

* * *

☞ Success is the reward of eternal vigilance. Do not neglect colonies hived on empty frames. Be sure that the combs are being built straight in the frames. See that the hives are level from side to side. Should you find that they are running the combs to one side push them back into place, if not too far gone. Otherwise cut them loose and fasten in place with sticks, in the manner of transferred combs. New combs are very tender, and when filled with honey and brood are easily broken. Handle them carefully, but be sure to have them straight in the frames.—*Indiana Farmer.*

Curiosities of Red Clover.—Mr. C. Aldrich, in the *Hamilton Freeman*, gives the following curious facts on this important plant. The tardy germination of many kinds of field and flower seeds is of frequent occurrence, and does much to perpetuate the most obnoxious weeds:

In 1879 our crops of red clover (*Trifolium pratense*) were very luxuriant. After the haying season it made a second growth, little inferior to the first, and the seeds of this "aftermath" fully ripened. But to the surprise of all the farmers hereabouts, the following spring (1880) found the clover dead—completely killed out! Of course this was very much of a discouragement to many of us who had just begun the cultivation of this excellent fodder plant. The causes of this mortality in the clover seemed to me to be that, after a most vigorous summer growth, we had an autumn of drouth, followed by a dry cold winter, but with little snow. This state of things killed out clover, without doubt. We all thought, however, that the seeds would germinate in the spring and make us another set of plants. But this did not occur, and in many meadows where the clover was very profuse and thick there were bare patches of ground all summer long. During the spring of 1880 the supply of moisture was rather limited, while the summer and early autumn was unusually dry. To the surprise of most people *now*—after the seeds have laid upon the ground two winters and one summer—they have germinated, and promise to make our meadows as luxurient with clover as they were in 1879 and previous years! The little plants have sprung up by millions, so thickly, in fact, that not one in a score can live. "The fittest will survive," and not only beautifully illustrate the great doctrine of "natural selection," but, what is of much more practical moment, will gladden the hearts of our farmers, who were greatly disappointed in the spring of 1880, to find that their clover would never wake up from its winter sleep.

* * *

The Honey Crop.—The *Indiana Farmer* remarks that "with the use of the many improvements in bee-keeping within the last few years the honey crops of this country may be increased ten fold. And yet none need fear over-production. Honey has become a staple. The home demand and consumption is on the increase largely every year. The exportation of honey to foreign countries has become a success, and American honey is in good demand at paying prices. The California honey crop will be quite small this year, while last season's crop is all consumed. The prospects are favorable for good prices and steady demand for all the honey that we can possibly get."

SELECTIONS FROM OUR LETTER BOX

Bee-Keeping in Georgia.—Mr. Bledsoe, of Mississippi, in speaking of the different sized frames, etc., gives my ideas exactly. Most of us in the South are unable to purchase hives, etc., but must make them, and to make a substantial 11⅝x9⅛ in. frame is much more likely than one 17⅞x9⅛. You must remember our boys in ante-bellum days learned no trade as a general thing, and did not learn to work. I mean, of course, those owning slaves, and we have had to scuffle around considerably to do as well as we have, and you might consider us prodigies if we could make and use tools well now, having never been accustomed to it in our younger days. I wish we might have been let down easily instead of jerking the props from under, so suddenly. But we are all natural philosophers, and make the best of things as we find them, taking things easy. And "if we cannot be easy we are as easy as we can be." Again, my experience in leaving on the cap during winter is like that of Bledsoe. I had a fine Italian queen, purchased of Dr. J. P. H. Brown, of Augusta, that I would probably have lost, as the bottom combs molded, and she moved everything up into the cap, and saved her little family, and they have built more comb and stored more honey than any I have this season, and are still in it. Industry is gradually spreading over our section, and many are inquiring about the improved system of bee-keeping, and making preparations to give their bees better quarters than the old box gum. Many will neglect to attend to them, I know, and but few will realize any considerable profit from their keeping. But bees pay well here, even in the old gum, if we could keep them from dying out, from over swarming, loss of queens, etc. I sell, here at home, extracted 8½ cents, comb 12½ cents. I have to compete with the box gum men, and as they will sell at any price—7 cents is what they get for comb honey now—I think I am doing pretty well to get 12½ cts. I am not offering any more comb, however. It pays me well on the investment at 12½ cents, as I have a good location for bees, and only keep as many as I can attend without interfering with the work of the farm. I caught the "idea" from your issue of June 1; had it already from the pen of Mr. Doolittle in the JOURNAL for 1880, but had neglected to remember. I am well pleased with the JOURNAL in any shape, but would prefer it something like the BEE JOURNAL for 1880. Capt. Milt. McCoy and Dr. Bragden, Chillicothe, Ohio, made us a tour of inspection a few weeks since, and have induced some to try clover If successful it will revolutionize farming and bee-keeping.

J. B. RUSSELL.

Cuthbert, Ga., June 20, 1881.

Bee Stings.—I have found the immediate application of common salt to the place stung to be very effective in neutralizing the poison, and allaying the pain, both in my own case and in others to whom I have given the remedy, so that I feel no inconvenience. I usually carry a lump of salt, and place it near for immediate use. Perhaps it may not prove as efficient in giving relief to others, but it is a convenient remedy when effective. My bees were late in getting down to their work, but they are doing well now. I have had no swarms yet, and very little indications of any preparations that way, but yesterday I found them preparing queen cells and hatching drones. One swarm became queenless, and I found a queen capped in a frame well filled with capped brood, and placed it with them, but they tore down the cell. I then found a frame containing capped and uncapped brood and eggs in nearly every cell and placed that with them; yesterday I found them constructing a queen cell—how it will come out I cannot tell. I have given them several frames of brood from hives that could spare them. They are storing honey freely.

L. B. WALKER.

St. Johns, Mich., June 22, 1881.

Good Prospect for Honey.—I lost all my bees (23 colonies) last winter; over ⅔ of all the bees in this locality died; but I am commencing again. Bees are doing well now on clover; the prospect is fine for a good crop of honey.

T. P. BARNUM.

Carlton, Mich., June 23, 1881.

The True Cause of Winter Losses of Bees.—It is amusing to hear the reasons given by bee-keepers of the different causes of bees dying in winter—some giving one reason and some another. In my opinion, nine-tenths of all the bees that died last winter died from being confined so long without a chance to fly. I am more than pleased with the Weekly BEE JOURNAL—cannot wait for a monthly in these times.

F. L. MERRICK.

Kankakee, Ill., June 23, 1881.

Bees Doing Well.—The loss of bees last winter was fearful in this locality. They are doing well now, gathering honey fast, and swarming freely.

J. STEWART.

Rock City, Ill., June 24, 1881.

The Honey Yield.—Our honey crop is being cut short by reason of the unfavorable weather—cold and stormy. The first swarming occurred here on the 10th and 11th inst., which is earlier than usual. During the last 2 weeks it has rained much of the time, with some hail, cold nights, and no warm days. The locust is going out of bloom, and the yield from that source has been very scant. The yield of honey from the berry bloom was very limited. The white clover has been in bloom 2 weeks, but it does not yield much nectar; consequently the honey season will be of short duration. We can now only depend on the clover, while yet it continues, and basswood and buckwheat. At present the outlook bodes a short supply of honey. I have just received from Mr. C. H. Lake photographs of his bee hive in working order. The hive is designed to prove a life-saving tenement for bees wintered on the summer stands. It is a Langstroth hive, having dead-air chambers on all sides and bottom. Dead-air chambers are away ahead of any sort of packing as a protection against the vicissitudes of irregular temperature.
C. J. Robinson.
Richford, N. Y., June 18, 1881.

Sour Honey not good for Winter Food.—Out of 45 colonies of black bees last November I had but 15 very weak ones on May 1, which are now getting in working order. My hives are one foot square inside, and 22 inches long; I use division boards, and winter on the summer stands without protection, except blankets. I attribute the loss to a poor season last year, when they gathered some sour, unhealthy honey; there was some uncapped honey in the lower part of the frames last fall, and some of it is there this spring; the capped honey is all gone.
F. Baker.
Holly, Mich., June 20, 1881.

Fertile Workers.—Is there such a thing as a fertile worker—a bee with the pre-requisites to lay eggs, carry pollen and store honey? Please answer in the Bee Journal.
A. S.
Shellrock, Iowa, June 20, 1881.

[Yes, there are fertile workers. We have had two sent us which were captured in the act of depositing eggs. They were dead when received, but from their physical structure we would imagine they were possessed of all the instincts and attributes of the ordinary worker bees.—Ed.]

Bees building up now.—About 75 per cent. of the bees in Jersey county died last winter. Those that lived through are doing well, building up, and gathering honey very fast. I have been considerably interested in reading the Journal, to see in what hive bees have wintered on the summer stands best, as that is the hive we want in this latitude. Armstsong's Centennial hive has been the best here, some losing all their bees in the other hives and saving most of them in the Armstrong. The Weekly Bee Journal is just what we want; I do not see how we could have done without it so long. Monthlies are in style no longer.
H. D. Edwards.
Delhi, Ills., June 21, 1881.

Wintered Well.—Bees in this section wintered well; they are generally kept in cellars. I put 43 colonies in the cellar, one died in the cellar and 3 after I put them out; 3 were queenless and one was robbed. One man put 70 in a cellar and set them all out alive; and another put 38 in a cellar and all came out alive. I have had 17 swarms; my bees have not commenced to work in boxes yet. It has been too cold and dry for honey here. I cannot do without the Bee Journal as long as I keep bees.
E. F. Taylor.
Canton, N. Y., June 20, 1881.

Good Honey Yield.—Our bees are storing honey very fast. It has been a poor year for swarms, but, so far, the bees have stored 60 lbs. of box honey per hive, which we consider good.
Bray & Seacord.
Warthan, Cal., June 11, 1881.

Good Yield of Honey Expected.—The loss of bees is great in this county, as well as elsewhere; a few have wintered without loss, on the summer stands, packed with chaff. I have 30 weak colonies out of 50 last fall. They are filling up fast now, and the season bids fair to be a good one. We have had plenty of rain lately.
W. H. S. Grout.
Kennedy, N. Y., June 16, 1881.

Bees in Muskoka, Canada.—I commenced last spring with one colony of bees, very weak, and increased to 2, by natural swarming in August. The swarm did not gather quite enough for wintering, so I fed granulated sugar syrup, as directed by Mr. D. A. Jones; I packed them in chaff and straw about the 1st of Nov., on the summer stands, 18 inches all around the hives, with the upper story filled with chaff; they had no flight from Nov. 5 till March 15; it was very cold at times, twice it was down to 40° below zero; the old colony showed signs of dysentery, I think, from having an excess of pollen; the swarm fed with sugar syrup showed very little dysentery, in fact, it came out as strong as the parent colony. About 30 per cent. of the bees have died in this district; ½ in bee-houses and ½ on summer stands. Can a weak colony of Italians be safely united with hybrids for wintering? The frame I use measures 11½ inches wide by 13½ inches deep, 10 frames to a hive, with a half story for surplus. The Weekly Bee Journal has become a necessity with us.
Robert H. Smith.
Falkenburg, Ont., June 15. 1881.

[Yes; you can safely unite hybrids and Italians for wintering.—Ed.]

Wintered on Summer Stands.—I wintered 16 colonies on the summer stands with a loss of one up to April 7; after that I lost 3 more which had queens but no brood and one had no honey until I supplied it with some reserved frames of capped honey. My bees have not done very well this spring on account of the cold wet weather, but now they are working nicely. Since reading in the Bee Journal for June 15 of the proposed change of size of the pages for next year, I, for one, will say that I shall be much better pleased with it, and you may consider me a subscriber for 1882.
F. H. Seares.
Girard, Pa., June 19, 1881.

Bees in the Highway, etc., a Nuisance.—A man kept a colony of bees by the fence of a public highway; mischievous and ugly boys stoned the bees until they caught the malady and immediately took possession of the highway, and warned people very quietly for several days not to pass that way. My brother, not knowing of the blockade, undertook to return home that way from town; the insulted bees halted him and stung him and his horse; the horse upset the carriage and demolished things generally. The overseer of highways ordered the bees removed, and was coolly told to do it himself. That night a load of straw was seen approaching the innocents; a bonfire lit up the firmament; in the morning a black and charred spot told where a "black and cruel deed" had been done by one that believed that bees in the highway were a nuisance. Neighbor S., living in an old house, had a large swarm of little, black, sharp-pointed bees move in and locate in about the center of the house, between the floor and ceiling; the floor being open and the ceiling cracked, the bees left the clusters in all directions; the 2 families quarreled. Mr. S. declared a war of extermination; the bees accepted the challenge. Mr. S. murdered them by the thousands without mercy, with fire and sword, brimstone and smoke. The bees used their spear and bag of poison until they blackened and closed the eyes of Mr. S. and drove him and his wife and children into a little corner bed-room that happened to be bee-proof. After 2 or 3 days of fearful carnage they sent for the bee tamer. I found about 2 quarts of bees clustered on 2 small pieces of comb, ready and willing for war. I treated them kindly, gave them all the honey they wanted, invited them into a nice house with as many hexagon rooms as they could occupy, but the slaughter had been too great; before they could rear their brood (21 days) they dwindled to a mere handful and perished, and neighbor S., after a week's confinement, declared bees to be a nuisance. I have 29 colonies of bees, doing well. I lost 7 colonies last winter out of 35; 2 or 3 were queenless; the mice killed 1, and 2 or 3 died of dysentery; 5 or 6 were sick and weak after 6 month's confinement, and one had a drone-laying queen. I had a nice swarm come to me about a week ago. Bees are swarming earlier than usual; nearly all my bees are storing in section boxes.
Alvah Reynolds.
Oneida, Ill., June 11, 1881.

Old Queens.—Old combs can be nicely cleaned by pouring water over them and throwing it out with the extractor; pare off the moldy part with a knife. I have hived 5 swarms this week on old combs treated thus, and bees go to work immediately, carrying out the soured pollen in bulk, and dragging out the dried dead bees in a hurry. Of the 5 swarms, only 1 queen could fly; is it a sign of old queens, or what is the cause?
Peter James.
Waveland, Ind., June 18, 1881.

[Frequently queens that have been pushed to their utmost ability in breeding, become too enfeebled to fly at the first attempt. Yours may, however, have been incapacitated from old age or defective wings.—Ed.]

Swarming.—My bees commenced to swarm on May 20, and by June 1 I had 20 swarms; by June 19 I had 26 more, and have only lost 3 of them; one hung out all night and went off in the morning; another did not cluster and went off before all left the hive, and nearly half of them returned to the hive (an unusual occurrence); the other became mixed up with another swarm, and when hived they could not all get in and that swarm left. We have a fair crop of honey from the basswood, but have had too much rain. I had 40 colonies of bees to commence with; I have sold 5 and have 85 left. There is a good prospect for honey.
John Boerstler.
Gilead, Ill., June 22, 1881.

A Chapter of Experience.—I bought my first colony of Italian bees of Mr. Heddon in 1879. They were of the dark, leather-colored variety. Since then I have bought queens and bees of Roop, Valentine, and others, but the finest queen I ever saw I got from D. A. Pike. I reared queens from her and they were as handsome and light colored as their mother; the drones were large and almost as yellow as the workers, and the queens are very prolific. I bought 5 colonies of Italian bees of H. A. Burch & Co., in 1880; they arrived about a month later than they were to have been sent; 2 were hybrids and 3 black. I have since Italianized them, as I want nothing but pure stock in my apiary. With the Weekly Bee Journal I am well pleased.
D. P. Campbell.
Park Hill, Ont.

Upper Ventilation.—Out of my 50 colonies last fall only 7 lived through; 8 that were packed all died. Those that lived and were in the best condition had upper and lower ventilation and were all on the summer stands. M. had 16, in box and cottage hives; all died. T. H. had 13, in box hives; all living; a strong one had a hole in the top, with an empty hive on for surplus. H. has 7 alive; he only had a few last fall (I do not know how many). His hives stand on nails or blocks and have holes in the head (with caps) for passages. None of these bees were packed—all remained on the summer stands except the 8 I packed which died. I believe in upper ventilation; bees cannot get enough air through packing, only for a time. Moisture, I think, causes uneasiness, and the bees fill themselves and dysentery is the result. I bought a box hive this spring which was on the ground without bottom-board; the front-board was about 4 inches short, with room enough for a full grown rabbit to enter with ease; the top was an old barrel head, laid on in two pieces, lacking nearly an inch of meeting, with a rough board over the space. Besides this, between the head and hive, for ¼ of the way around, was nearly ¾ inches space between. The mercury last winter was 12° below zero here, and the above is what I call upper and lower ventilation. I transferred the bees from the box hive (which was about 3 feet high and 11 inches square) about swarming time. I had only 2 frames of brood 12 inches square and was a medium colony, showing that the queen was not worth much. There was no appearance of dysentery and but little honey.
S. G. Haile.
Big River Mills, Mo., June 13, 1881.

Good, for a Beginner.—In April, 1879, I bought one colony of Italians from G. M. Hawley, and increased to 2; in 1880 I increased to 4; wintered on the summer stands, packed all with straw, except in front, where I hung a piece of rag carpet. They all came out good and strong in the spring. I have increased to 8 this summer. Prosperity to the Weekly Bee Journal.
G. W. Gorum.
Bennet, Neb., June 19, 1881.

The Enlargement of the Bee Journal.—Dear Editor: I am exceedingly glad that you will make the improvements and enlarge the Bee Journal next year. It is very gratifying to know that this year's experiment of publishing a Weekly Bee Journal has been sufficiently encouraging to you to give us so long in advance the promise of doubling the number of pages and improving the size of the leaves, so as to be more convenient for binding and preserving. Though I have been very much pleased with its weekly visits, I must say that I have not quite liked the inconvenient size of the pages; but as I felt sure you would improve that as fast as you felt warranted in doing so, I have not said anything about the inconvenient shape, and hail with joy the promise of the improved Bee Journal for 1882. You can count on me for a subscriber, for I must have it as long as I keep bees.
Joshua Hills.
Granby, Minn., June 20, 1881.

Cellar Ventilation, etc.—My loss in wintering was 1 out of 7. They were packed in tiers 2 hives deep and about 6 inches apart, with straw between them and about 3 feet of straw at the back. They were facing the south. There is a good prospect for a fine linden harvest in this locality. 1. What is the best plan for ventilating a cellar, size 12x20 feet? 2. The little black ants are crawling all through my hives; how can I keep them out?
J. E. Pryor.
Arbor Hill, Iowa, June 14, 1881.

[Run a 6-inch drain-pipe from the the outside into the cellar. This should, if possible, run through the earth outside and make the connection with the cellar near the bottom. Another pipe should connect the cellar with a chimey-flue or stove-pipe. These pipes should both be arranged with dampers, so the temperature of the cellar can be regulated.

2. Various methods have been suggested, but we know of nothing more effectual than to put the hives on stands having legs, and let these rest in vessels (fruit cans with the covers trimmed off will answer) partly filled with crude petroleum or diluted sulphuric acid.—Ed.]

The Clover, etc.—There is very little honey from white clover as yet, although the bloom is magnificent; it is too cool and wet. Basswood is in bloom; nearly half of the buds are open. Although there were hardly enough bees left for seed, in this locality, we have heard of several runaway swarms. One clustered on the lamp-post at the corner of one of the principal streets. Bee-hunters that had marked colonies in trees last fall, and did not take them up because they had so little honey, report them dead this spring.
Mrs. L. Harrison.
Peoria, Ill., June 22, 1881.

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☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

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☞ When changing a postoffice address, mention the *old* address as well as the new one.

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◆

☞ At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

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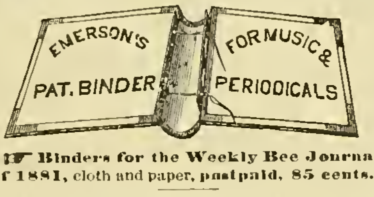

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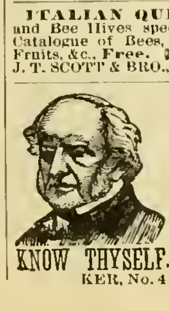
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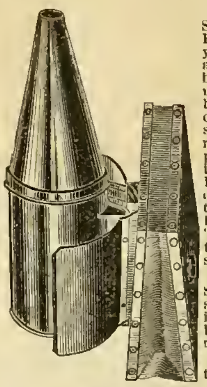

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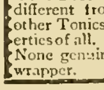

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VOL. XVII. CHICAGO, ILL., JULY 6, 1881. No. 27.

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For the American Bee Journal.

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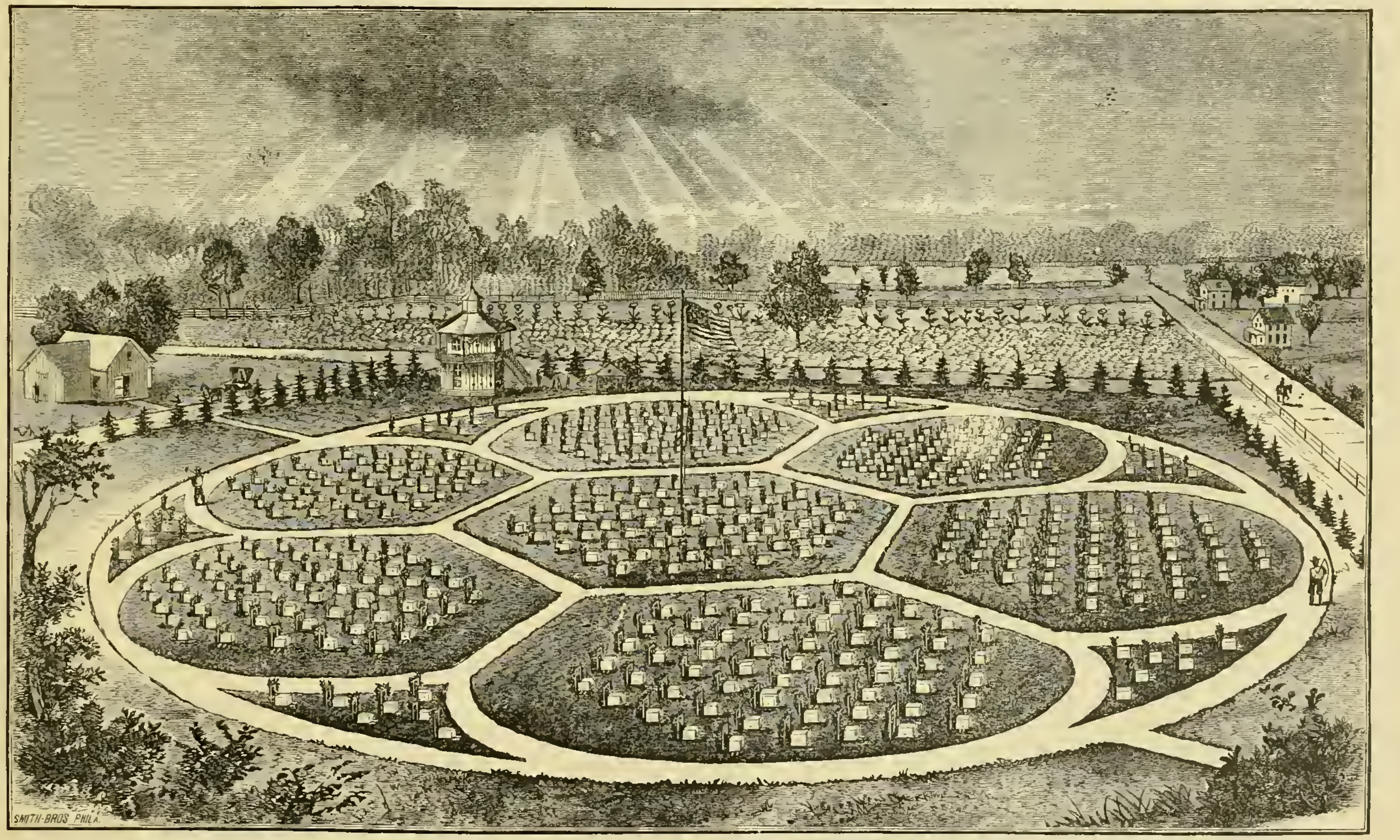
P. LOUCKS.

I have handled bees some 18 or 20 years on a small scale, but have not made bee-keeping my entire business until this year. I have read 3 editions of Quinby's bee book, several of the bee periodicals, etc., so I have had theory and practical experience.


SMITH-BROS PHILA.

A Picturesque Apiary, Designed by Mr. A. I. Root, of Medina, Ohio.

I first made box hives as recommended by Quinby; after a few years I transferred to the Langstroth frame, using hives of different patterns—Novice's simplicity, A. H. Hart's complicated patent hive, and a hive of my own make, with loose bottom-board, honey-board, and cap to cover boxes, but no portico.

I also caught the Italian bee fever, which lasted for several years.

On selling out to move to California I had one pure Italian colony out of 23; the rest were hybrids. This experience was in Outagamie County, Wis. When I commenced bee-keeping here I wanted either blacks or pure Italians (no hybrids for me), and as the country was stocked with the black or brown bee, I concluded they were good enough for me, considered in the light of former experience.

For a hive, I wanted something cheap, simple, and practical, so concluded to adopt the following: inside measure 14½x18x10 inches, holding 10 frames, a little shorter than the Quinby frame (because I did not have the exact dimensions), bottom-board nailed on, and projecting 2 inches in front; the honey-board is made of ½-inch lumber, with six 1½ inch holes. I put a moulding all around ½ inch below the top of the hive for the cap to rest on; cap 8 inches high. For entrances I cut out of the front end 2 places at the bottom, ⅜x 3 inches, and bore a ⅝-inch hole near the top. For a stand, I take 6-inch fencing, cut two pieces 16 and two 20 inches long, nailing the short pieces against the ends of the long ones. I slip the front end up enough to correspond with the thickness of the bottom-board of the hive, the back end I raise one inch or more to give the required pitch forward when the hive is placed on the stand, so the bottom of the hive rests on the side pieces. The front end of the stand serves to keep the hive from sliding forward, also to enable the bees that fall short of the entrance to crawl from the ground to the entrance without difficulty. The upper story is made the same as the lower story, except minus the bottom-board and the entrances.

The main part of my stock, to start with, I transferred from bee-trees. In 1879 and 1880 I transferred and worked some bees on shares; but now I have all the bees of my own that I want to handle. I had my leg broken the 12th of March, so cannot give my bees the attention necessary to get the most out of them. I have my brother-in-law doing the best he can, but he is a raw hand at the business. Swarming season is at hand. The doctor says he will have me out on crutches the last of this week or the first of next; then I can spread the brood and start the nuclei hives, which I do as follows: I take a standard hive, put 2 partition boards in it, make entrances on each end and one side, to accommodate each department, one flying east, one south, and one west, each apartment holding 3 frames. I now go to one of my best colonies, take a comb of brood and bees, selecting one with a large amount of sealed brood, and a few eggs, from another colony I take a comb of honey and bees, also shake the bees from one or two more combs, being careful not to get the old queen, and put in one empty frame. I fill each apartment the same way, then confine them to the hive 24 hours. I rear as good queens in this way as I can wish for. When I remove the queen to a new colony I replace her with a sealed queen cell, if such are at hand. I thus keep them occupied rearing queens and building comb, and in the fall or latter part of the honey season they generally furnish some surplus honey. At the end of the season after taking out all the queens but one, I remove the partition boards and let them unite, making a good colony. Last fall I left 2 queens in one such nucleus hive, after taking out one queen and removing one division-board; in January I took away the queen from the double nucleus to supply a queenless colony, intending to remove the other division-board, but did not get around to do it for about 2 weeks, when I found they had reared a good-looking queen. So I left her, to see what she would amount to. I examined them once a week. Feb. 27 I failed to discover any eggs, but she must have commenced to lay within a day or so, for March 6 I found a comb with a circle of 5 inches filled with eggs, and hatched brood well supplied with food. I have not had a chance to look at them since, but I had Mrs. L. and her brother examine them; they report worker bees hatching out in fine style. When I get around, I will give her a chance to "spread" herself, to see what a queen hatched in January and fertilized in February will be able to do.

I divide for increase, making one colony from 5 old ones as often as I think advisable. I never saw queens "spread" themselves before like some of mine did last year in April, and in May nearly every cell in the lower story, and the greater share of the second story was filled with brood, and the third story with honey.

About 35 feet from where I lie in front of a window, there are 3 colonies of bees, the weather being warm enough to raise the window I have a good view of them. They are going in and out so fast and eager that one might think they had found a white clover patch. I was in hopes of being able to hand in a report next November that would astonish the "natives," but a broken leg, no hives to speak of or lumber to make any on hand, on account of looking up and moving to a new range, obliged to move on account of our health, have disappointed me. Let me say to Mr. Hohenshell that if he wants to shake his boots off he can come and take the place I am now on. I do not mean to say but he can find some other range where it is healthy.

I am experimenting with bees in several localities this year, having 9 colonies in the Sierra foot-hills, 9 more on the San Joaquin river, the balance I am moving some 20 miles down King's river, where they claim to have good health. Now, for the benefit of those who doubt my statements, I will say that I keep an exact account of all I do, and can vouch for what I say.

King's River, Cal., March 28, 1881.

* * *

For the American Bee Journal.

When are Bees a Nuisance?

JAMES HEDDON.

I must, through the Bee Journal, thank a host of bee-keeping friends who have, in private communications, answered my question as to whether bees are a nuisance, and under what conditions? From a host of evidence and opinions of able thinkers, I have made up my mind in regard to the matter. "If bees are kept and treated in such manner that they fly at and sting people or animals then they become a nuisance, from their *location*." This was the decision of Gen. May, City Attorney for Kalamazoo, I am informed.

In my own case, the bees were kept as follows: From 100 to 200 colonies were located upon two city lots, forming a square eight rods each way. This square was surrounded by a picket fence; the apiary was surrounded by a six-foot, tight, board fence, all within the outer fence, besides buildings and apple trees on nearly all sides. During my 13 years' stay here not a creature has ever received a sting, except where a bee has been stepped on or pinched by children or others. A very few (perhaps 4 to 6) cases of this kind have happened, and some of these half a mile away. This, however, was not the principal grievance; the main complaints were: "The bees get into my pump," "into my well," "into my cistern," "into my tub," etc. Notwithstanding we have used every method we could devise or hear of to water our bees in the yard, more or less would visit some mossy buckets and pumps. Another trouble: two or three times some clothes hung out to dry just when the bees took an opening flight in the spring, were spotted by them. Our own never happening to be out at the right time to get specked, we did not know of the annoyance to others till years afterward, or we would have cheerfully paid the cost of re-washing. Notwithstanding the first two years we kept a large number of colonies in this same yard, not a word was heard about their troubling any one.

Well, just as I had sold the lots containing the bees and was negotiating (trying to obtain a clear title) down by the river, where I would lose no more bees in tubs, cisterns and wells, and move my apiary thereto, some of my supposed friends drew up and circulated a petition asking the Aldermen to exclude bees from the corporate limits of the city of Dowagiac. Not a man in the place, except myself, had a bee or was likely to have one, judging the future by the past. A majority of my nearest neighbors refused to sign it. Misrepresentations were made to induce them to sign it (if I have been rightly informed), but without avail. Such a foolish ordinance would have been largely a "corner" on the business for me, as nineteen-twentieths of all possible opposition in the field would have been cut off. But that did not change wrong to right. I asked the Aldermen to investigate the matter and then decide. They did so, and decided to throw that petition in the "waste-basket," or to table it, which is practically the same thing.

Soon after I obtained a piece of ground to suit me, near the water, and away from houses (except one, the inhabitants of which invited me to bring the bees there, having had some little chance to know something about bees), and that ground is within the corporation limits, and "upon that rock" I propose to "stand," petition or no petition. We have a City Board who are not unwise enough to pass such an ordinance, and no City Board has the power to expel bees from its limits, any more than the raising of onions or cabbage. When they are so kept as to become a nuisance as aforesaid, they can order that nuisance abated.

As it was to our interest to move our bees away from our supply houses, where our honey and wax works are kept, and *we* suffer the only real annoyance, we felt that a disposition to throw oil upon the troubled waters and have good will and peace with all men, was the truly wise and moral course. We adopted it, and moved 120 colonies during their work on white clover, and as we only moved them less than a mile, what do you think the result was? Well, we made one strong colony with a comb of brood, a queen cell, and what bees returned.

Now, in regard to the ideas of Mr. Martin, as given on page 194 of the Weekly Bee Journal for June 22d, I think they are widely open to comment. First, allow me say, that to those neighbors into whose yards I had to go to recover swarms, and where I would sometimes injure the garden plants, we always presented honey to ten-fold the amount of injury. As Mr. Martin says, this present made non-petitioners of them. There is no doubt that if I had extended the donation line far and wide enough to have taken in these petitioners, all would have been peace. But if the damage from these pump, cistern and well-loving bees can be appeased with a few combs of honey, should we be obliged to give them to opulent people, when we have people in our midst whose little children are hungry for deserved sweets that their parents cannot afford to buy, perhaps because they are cheated out of their just earnings by those more opulent and influential petitioners. Our machine shops are allowed to whistle and rattle, because they are a business blessing; our saw-mill proprietor is allowed to fill the roadside for many rods with logs, because he is doing business; the city gravels the road to a grist-milt, because the mill is a blessing to the business interests of the city. Now, should a business which employs two to four men, brings in from the labyrinths of nature from $1,000 to $2,000 yearly (thus making two blades of grass grow where but one grew before), rest upon such a flimsy foundation that the owner must present a portion of his product to people (out of fear, and not of love) who are well able to pay for their luxuries, and who have had educational and observational advantages enough to know they should encourage such an industry as apiculture, both from a sense of duty and interest. Being, as it is, a fact that the rich have more power than the poor, I have probably made a great mistake in placing many of my donations; but now I am so isolated from the powerful (who can send a petition smack into a waste basket), I guess I will continue my former way of selecting donees.

Dowagiac, Mich., June 14, 1881.

* * *

For the American Bee Journal.

Progressive Bee-Culture.

C. J. ROBINSON.

Wintering and winter management of bees seems to be the theme of correspondents of late. On page 42, of the current vol., Mr. Miner informs the readers of the Bee Journal that "upward ventilation" has been the destroyer. Mr. Miner's idea is that bees must have a free circulation of air to generate heat. However, he concedes that he realized the best results when he excluded the air from his 48 colonies by "covering them with snow in the coldest weather." His two modes of wintering are as opposite as science and quackery. But the nub of Mr. M's article is the discovery that an inch of open space between the lower end of a box hive and its bottom-board, all around, would not lose as much heat as a ½ inch hole at the top. Mr. M. says that his box hives were one foot square; then if there was an open space at the bottom of one inch all around, the opening was equal to 48 square inches. Now, ignoring science, if he will open at the base of his sitting-room in a cold day an opening of 48 square inches, and try the effect produced by the rushing in of cold air for a time, and then close the opening at the base and open a ½-inch hole in the ceiling overhead, he might be inclined to change that opinion.

The little learning that I have acquired and the experience I have had with bees, during half a century, qualifies me to say how bees can be wintered reasonably successful, and I fear the problem involved in a scientific winter management of bees is yet afar off.

The "chaff hive" men, like Mr. Miner, "found perfection" and exclaimed Eureka; but dire destruction still follows each successive winter. The *hive* cannot obtain honey, nor regulate the climate! Were it not for the devastation of bees during the inhospitable reign of winter and spring, this land would, indeed, flow with milk and honey. Will such a happy fruition ever be the destiny of our race?

There has been rapid progress in the science of apiculture since the advent of the American Bee Journal. At that period, bee-culture was at a low ebb everywhere, except in some parts of Germany. Then no discussions were had, *pro* or *con* on any subject, or new idea or theory held, with perhaps a few exceptions. There were but few correspondents to the Bee Journal, and all had their say, which was taken for granted as revealed truths, like the writings of King James' translators. The American bee-keeping fraternity and the public generally owe a colossal debt of gratitude to the lamented Samuel Wagner, a German by birth, who was the founder of the Ameriean Bee Journal, as well as its present able editor. Conceived in a laudable desire to do good, conducted with a view to the promotion of general prosperity, dedicated to the interests of a hitherto neglected industry, the American Bee Journal established as an experiment has become a "fixed fact," commanding universal admiration, and this pioneer Journal, by unflagging industry, has now reared 17 monuments upon the broad area of industrial improvement—each volume bearing tokens of ability and energy, as indelible as they are distinct.

Many bee periodicals have sprung into existence, but the American Bee Journal retains its superiority, ever holding forth a beacon light to imitators. Let it ever be remembered that Samuel Wagner's was the first voice claiming for bee-culture its rights as a science. His light gleamed alone, but brighty and steadily, amid the dark mists of ignorance and prejudice, and even now—now, when the land is illumed by many others—that same torch (but in other hands) is burning and blazing with a pure and brilliant flame.

I am not to flatter nor to treat with contempt, nor to be personal in my writings. I commenced this communication with a view of adding my mite to the subject of winter management, but I have wandered, in memory of my ideal friend and instructor of former days, but I will now close, hoping to recur to the subject of wintering in a future article.

Richford, N. Y.

* * *

For the American Bee Journal.

Black agin Italian.

LUKE TWIST.

[Bein' a artical which proves that the Blacks is superior.

I am an ole man, nigh onto three score nor ten, and mi flaxen lox is thickly spangled with threads, uv silver, and all no this, mi well spent life hez ben passed amung them bizy insex, bez. Sum no the earliest things thet i kin remember is plain round these noise hives, or bein' lulled tu sleep by there sweet music, or dancin' a jig tu the merry hum uv there tierless wings. I never hed much book larnin, thank the Lord, and heve never ben tu skule only 6 weaks in my life, and as I heve not burdened mi mind with sech nonsensical trash as gografy and rithmetic, yeu see me able tu stand forth and not only cope with, but everlastin'ly demolish the so-called sientific bee-keapers, and, ez a consequence uv not idlin' awa mi time in skule, to be bloated out with book-larnin and self-consete (for yeu will finde humility tu be wun uv mi greatest characteristix), i heve ben able tu divote a larg portion uv mi time to practical experimints fer the improovemint uv the hunny be, and after yeres uv patient trials and tests, i am forced tu the conclusion thet the black be, in the good ole-fassioned box hives, is the best. I will neaw proceed tu give yeu the menes by which I prooved the Italian uv no good.

I seen a advertisement fer italian bez, so i sent a dollar tu jorgee for a be, fer I hed heerd thet wun be put in the hive wood make 'em all italians. Yeu ma be surprised thet I kin efford tu pay a dollar fer jest wun be, but, yeu sea, I don't spare no panes or muny fer tu make mi experements ontirelie fre frum fault, and I thaut ez long ez I wuz goin' tu git wun I mite ez wal git a good wun. After a while the bez cum; they wuz tu kinds on um. I didn't no which was the italeans and which wuzn't, so I thaut i'd put um both in, tho wun on um didn't look ez ef he cood fli for greens; it wuz about twice ez long ez the rest and hed wings about half ez long.

I kept em kooped up in that ere little koop untill nite after dark; it was moonlite. Then I quietly snook up tu the hive and opened wun end uv the koop and let um run in. I got up in the mornin' expectin' tu find a lot uv them little lazy yaller humbugs crawlin' round; but what du yeu think! not a sine of a yaller wun wuz they! all as black az a republican's harte. I looked round and there they wuz aul heeped un dead on the ground. Neaw ef i'd ben predjudiced agin the italian bes, or didn't heve mi subject thoraly distilled intu me, i'd got mad and nocked over the hive and raised the deuce; but I didn't, I jist thaut tu miself, "neaw I no all there is tu no abaut bez, and they can't no body learn me nothin' about um, but I'm bound tu satisfy the public, and I don't give it up in no sich way ez this." So I sent tu a nuther man and paid 8 dollars fer a hive—that's the gospel truth, hope to die ef it ant.

Tha cum, at last, and I sot 'em out along side a hive uv blacks, and there I watched 'em. Fer about 3 weaks untill tha swarmed I thaut tha wuz purty slick, and mi harte begin tu quale fur the black; they waz up earlie in the mornin, and out late at nite. But wun thing I noticed: that, whereas I didn't sea tu moths lain' in front of the black beas hive aul summer, them italians hedn't ben thare a weke before i seen 8 in frunt uv them. How is thet fer hi ? Tell me that black bez is trubled moar with moths than italians be. Tha wuz purty gentle until after tha swarmed, and then tha wuz az cross az the dickens. Tha woodn't no moar let me eum nere the hive than a hive uv blacks wood let me take hunny awa frum um when tha wuz alive. Tauk about italians bein' gentle! And then a nuther thing, ef i ever go tu strain hunny out-doors them pesky italians is allers round stickin' there tungs inter me; or if i set eny frute out doors to dri it is jist coverd with bez, and these bez is allers italians, and neaw what moar kin yeu sa agin bez than this: full of moths, cross, and trublesum ? Didn't i git moar hunny frum them than i did frum the rest ? Yes, I did; but what does that amount to ? Don't yeu ever git moar frum wun hive than yeu du frum a nuther ?

And now, Mr. Editor, i wish I hed time tu extend this instructive artical, fer i no that yeu wood rather heve articals frum wun uv the feu old bekeapers like me than the trash which at present fills yeur colums; but, you must no, men uv mi ability heve all there time took up with uther matters, and tis with the greatest unconvenyence that i take time tu pen this artical, and on conclusion I wood say wun wurd tu the supply dealers. I suppose you will be awful hot at me fer spoilin yeur trade in italian bez, but I don't fele a bit sorry fer ye, and if I hed time tu rite on the superiority uv box hives I'd brak ye up in that wa, tu.

If, Mr. Editor, yeu wood like mi fotograph tu sell with those uv uther renouned be-keapers, I can supply yeu with a negative.

Hillsdale, Mich., May, 1880.

For the American Bee Journal.

Bee Items from Eminence, Ky.

W. T. STEWART.

As reports are now in order I will give in mine, and as I am one of the successful ones as far as wintering bees the past severe winter goes, I shall attempt to give a few items as to my method of bee-keeping,

I put 74 colonies into winter quarters, and in April I had 69, a loss of 5 colonies; 3 were queenless in April, and I doubled them up with others; cause of death starvation. All were wintered on the summer stands, packed in fine hay, dry sand, or chaff and sweepings from a flour-mill floor. Those that wintered best were in Hiram Roop's winter protector (of Carson City, Mich.); 40 of them were Roop's, and 20 Langstroth's; none died in the Roop hive. A description of it will be found in a back volume of the Bee Journal and in this year's *Gleanings*. I made them from the description in the Journal. After trying all hives fairly and without prejudice, giving all the same attention, in the same yard, and under the same circumstances, I have adopted Hiram Roop's. I do not know Mr. Roop nor have I hives to sell, or axe to grind in any way, but I do know that Roop's winter protective hive is the very best that I have ever tried for summer or winter; the frames are 10 inches square in the clear, 12 frames in the brood-chamber in summer and as few as possible in winter.

I use in each hive a feeder of my own make, that is in the brood-chamber all the year round; it is simply a trough under the top-bar of one of the brood-frames, the length and width of the frame and 2 inches deep; it holds one pint; the balance of the frame is filled with brood and honey; it has a hole through the top-bar and quilt to pour in syrup, with vacant space under the top-bar for bees to go in and out. I fed some colonies during all the past cold winter every week, and they are as good as the best today. I fed them warm syrup of A sugar the very coldest time we had, and never disturbed any bees; it is suitable for any hive.

I make all my fixtures for the apiary myself and save many dollars by it; I made my own extractor, of a molasses barrel, an apple peeler for the gearing, and the wire bottoms of 2 triumph hives for comb baskets, and it worked all right; it cost me $1.25 complete.

I get extra pasturage for my bees by saving all the seed that I can get from the Simpson honey plant, which is the best plant I ever saw; motherwort is the next best; catnip and melilot are good, too. I save all the seed from these 4 plants that I can get, and every time I go out in the vicinity I take my pocket of the seeds mixed, and drop some of them in every available spot, and some come up; the Simpson honey plant comes up in the spring only; the others will come in the fall or spring either, and I improve my location all the time. It is but little trouble if we have the will to do it, and don't cost anything.

I put my honey up in the best shape for market, nicely labeled, and I sold every pound last year for 20 tents per lb. in my own town; while some were offering it at 12½ to 15 cts. mine would sell first at 20 cts., because it was attractive. Mr. Drane and myself are informing people in these parts how to get up and buy honey, and we are getting people's eyes open on the subject. The season for surplus here is nearly closed and we have but little honey; it is a long way behind last season. No honey and but few swarms, is the order of the day here. Will not Mr. Heddon's doctrine about "bacteria" have a tendency to injure the sale of honey? Some may conclude that if honey will kill bees that it is not healthy for man, and will not use it; Mr. Heddon is right in most things, but I wish he could drop that notion until he can prove it. Mr. Doolittle's writings have benefitted me a great deal; his head is level on hives; I know by my own experience.

Eminence' Ky., June 27, 1881.

For the American Bee Journal.

The Honey Season in Georgia.

A. F. MOON.

The present season, this far, has been more favorable, both in the production of honey and swarming, than for several years; however, the swarming has not been so great, except in some localities. The principal cause of this was that in some parts the honey-dew was so great that the bees filled up the hives with it, and the queens were deprived of the amount of space necessary to deposit eggs sufficient to keep the colonies strong and throw off swarms. In some localities bees have not swarmed at all, but have stored large quantities of surplus. Had the extractor been used freely, a much better yield could have been obtained. I have examined several colonies, and find them filled below, almost crowding the queen out. This could only happen when honey-dew was so plentiful. The honey gathered is of superior quality, more so than usual, being a light straw-color instead of a wine-color, as it sometimes is, and is very thick and finely flavored. The main honey season is about over until the fall honey crop sets in, which is usually in August, or the latter part of it, and the month of September. I have had good strong swarms come off the last of August and the first of September, and fill their hives with plenty for winter. This, however, is an exception, not the rule.

But little or no buckwheat is sowed here in comparison with the North. I am sure that it would almost astonish a Southern man to look at one of the Northern buckwheat fields, both in full bloom and in full "ripening." The growth of buckwheat varies so greatly here from that in the North, that it is quite a curiosity. It is covered with bloom from its earliest growth until killed by cold weather; blossoming and ripe buckwheat can be seen the whole season, but it does not afford the amount of honey here it does in the North. This grain requires a peculiar atmosphere. Wherever winter fruit does well I have observed more buckwheat grown, and it secretes much more honey.

I see by the Bee Journal that there still exists a difference of opinion regarding the great mortality of bees. Some attribute it to one thing and some to another. I intend to test the matter, or, rather, have some experiments made. I propose to send to three or four editors of bee papers each a swarm of bees from the Sunny South; they will be in old box hives, rather open, but good and strong; these hives to set upon their summer stands, unprotected from the cold weather. By this method we may learn where the disease rests—whether in the food gathered or in the cold weather. I think they will stand the test; at least, we can know whether cold weather kills them.

The Weekly Bee Journal comes to hand regular as clock-work, and does not seem to be much exhausted. Its smiling pages are read with pleasure. Long may it continue a regular missionary to all parts of the world. To-day I received 3 bee papers from the old country. The bee-keepers there, as well as here, are doing a good work.

Rome, Ga., June 21, 1881.

For the American Bee Journal.

Honey Bloom in California.

J. D. ENAS.

The young queen I mentioned in the Bee Journal of Feb. 9, did not lay or have any brood until January 10. I clipped her wing to keep her from leaving, in case she was so inclined. I was not aware that I had any drones at that time, but on Feb. 19 she had several combs with good worker brood. I think she is pure; her workers are hatching and look fine. I had several young queens at the same time; they are doing well. I helped the bees out in the spring by uncapping my dark pale honey from golden rod (it has a fine flavor but is too dark to sell), and feeding it to them in the comb between the wet spells. My Italians fly between showers, and very often get caught. They appear to be heavily laden, and we frequently see them alighting to rest. They are very quiet, and but seldom trouble either human beings or stock, though at times the air seems full of them.

I wish to make a few corrections in my last article, which says my hives "have no portico, but the front projects." It should be, the top projects at the front, which partly shades the entrance. For "on the 15th I took away 20 frames" read I took away the 7 empty frames. Instead of "maganita" read mauzanita.

The mauzanita is regarded here as a good honey producer. I have watched it closely and fail to perceive that it shows itself that way. I have seen but few bees on it at any time, and those appear to get pollen. The hills have been covered with its bloom, but there appears to have been very little stored in the hives. I have seen wasps and humble bees on it, but if there is as much honey in the bloom as many persons about here seem to think, bees ought not to starve every winter, for it generally blooms about Nov. 1. The willows look different, when fine enough to fly anyone can see swarms of bees on the bloom. The idea here, too, is that the chemisal furnishes honey. When it is in bloom the hills look to be covered with snow, but the bees only occasionally visit it.

We have a bush that bears clusters of red berries in the fall; it is called here bear bush, as the bears eat the berries; while in bloom the bees appear to get intoxicated over it. I have seen, in a cluster of flowers as large as my hands, 50 bees, all busy and peaceful. If the evenings are cool many get belated and stay all night, and thousands of old and young bees can be seen on the ground under its branches, apparently dead. When the bloom of it is over, then look out for robbing.

Napa, Cal.

For the American Bee Journal.

Fastening Comb Foundation.

J. F. KIGHT.

I notice in almost every number of the Bee Journal an article in regard to fastening comb foundation. As there seems to be a great many ways of fastening it, I will give mine, which is as easy and rapid as any one need wish for. My frames are Langstroth, some with tongues and some with v-shaped top pieces. Having the wires all in (of which, by-the-way, 5 is all that are necessary) get a board just to fit the inside of your frame, then a pail of water to wet the board to keep the wax from sticking to it, then a 1-cent piece fastened to a handle and a groove cut around it with a file, or what is simpler still, a shoe buttoner with a notch cut in the heel of it, now place 5 or 6 pieces of foundation, with about half an inch in the sunshine (for more will get too warm) and you are ready for business. Place your board across your lap (after you have wet it), and if you have a little 4 or 5-year old girl let her hand you foundation, and place more in the sun as you work them; they will do it as well as you can, and delight in it, too; place the edge that is warm next to the top-bar of the frame and with your thumb or thumbs press tightly; now turn it over, and with your cent or buttoner run on each wire from top to bottom, and it is done. In this way my little 4-year old girl and I fastened 50 in 30 minutes. I have nearly 300 worked out, and not one sagged or fell down.

Now for the sections, cut your starters just the size you want them, lay them handy, to your left, for instance, and your sections inverted lying just before you, now get a chisel anywhere from 1 to 4 inches wide, and put it in the fire about 20 seconds and you are ready for work. If you are quick-motioned you can fasten about 12 before your chisel is too cold; place your starter where you want it, press the edge of it with the chisel, now invert again and straighten the starter, and when cold it will stick like a leach.

If any reader of the Bee Journal desires to fasten foundation, give the above a trial and he will be surprised at the rapidity. I would rather miss my dinner when hungry than to miss one number of the Bee Journal.

Poseyville, Ind., June 27, 1881.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—There is no new comb honey in market. We quote extracted, 7½@9½c.

BEESWAX—Choice yellow, 18@22c; dark, 15@17.

NEW YORK.

HONEY—White extracted, 9@10c.; dark, 7@8c.

BEESWAX.—Prime quality, 20@23c.

CINCINNATI.

HONEY.—The market for extracted clover honey is good, at 8@10c.

BEESWAX—18@22c. C. F. Muth.

SAN FRANCISCO.

HONEY—A lot of 1,216 cases and 3 bbls was forwarded this week on a wheat ship to Great Britain, the honey in cases being in fancy packages and shipped by a prominent packing firm. The visible supply of old is light and firmly held. Quotations are entirely nominal. For some old extracted an advance on quotations is asked, but there are no buyers at our extreme figures, except in a retail way.

We quote white comb, 12@14c.; dark to good, 9@11c. Extracted, choice to extra white, 7@8c.; dark and candied, 5@6c. BEESWAX—23@25c.

Stearns & Smith, 423 Front Street.
San Francisco, Cal., June 25, 1881.

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. Miller, M. D., *Pres.*
C. C. Coffinberry, *Sec.*

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CHICAGO, ILL., JULY 6, 1881.

"The Coming Bee."

We cannot refrain from giving the following letter from Mr. J. S. Tadlock, Kingsbury, Texas, a prominent place in our columns, and hope all progressive apiarists will give the proposition the consideration its importance deserves:

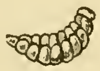
> I had 22 colonies this spring to commence with, but had to use all except one in queen-rearing; that one I determined to let alone, to see, for my own satisfaction, what one colony would do during the season. It gave me 107 lbs. of honey (extracted) up to June 15, also one large swarm. I managed them on the Doolittle plan of side and top storing combined. I send you a few of the workers of this colony; please examine them and see what you think of my Texas bees; they are the third generation from an imported queen. I want to make a proposition to the bee-keepers of the United States. Let every bee-keeper who feels so inclined send to you the sum of 25 cents to be put in one common purse, and be awarded to the man that will send to the National Association for exhibition the largest and longest worker bees. I like fine queens, but it is the workers that gather the honey. Would this not be the best plan to find and catch the coming bee?
>
> Here bees are doing nothing now. We have had a fine flow of honey from horsemint (the best of all honey plants) but a drouth of 2 months' duration has dried it all up. The bees have plenty of honey in the hives and are getting sufficient pollen to keep up breeding.

The bees sent us are large and fine, but very dark. We cannot say, however, that they appear in any way superior to many others we have seen; they were badly bloated with feces when examined, and somewhat bedaubed with honey, which would detract much from their natural appearance as seen generally around the hive. Mr. Tadlock has, we think, suggested the right course to find the "coming bee." It might be well for the National Society to offer a gold medal, or set aside a percentage of net receipts, or in some other way adopt measures to stimulate a general competition for the production of the "*best* bee" for all purposes; also for the *best* honey plants for cultivation, the *best* hive for winter and summer use, and perhaps other progressive steps which might be suggested. These questions should not be hastily decided, as they cannot be satisfactorily demonstrated in a single season, nor by an exceptional result. The National and various District Societies have done much in elevationg and advancing scientific apiculture, but the results of the past are but a meager index of the future. We cannot well imagine how any bee-keeper can regard with indifference the duties devolved upon him to sustain and encourage Local, District, State and National Societies, and especially should every person attend the Conventions and contribute of his wisdom and experience to the general good. We hope Mr. Tadlock will be present, with all his Southern friends, at the next National Convention, to urge his proposition, which will undoutedly receive a hearty support from the Northern bee-keepers present.

* * *

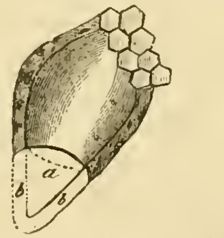
Development of Queens and Bees.

Mr. H. Hance, Bryan, O., asks for an answer to the following questions in the BEE JOURNAL: "How long does it take to rear a queen from the egg—that is, till she is ready to fly? How long is it, after she emerges from the cell, before she will take her wedding flight?"



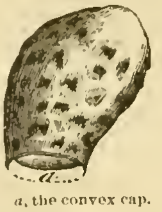
Larva of Bee.

Having passed 3 days in the egg and 5 in the larval state, the workers close the cell, and the future queen commences to spin her cocoon, which occupies about a day. Then, apparently exhausted by her labors, for 3 days she obtains complete repose, and on the 16th day, as a perfect queen, she emerges from the cell. The strength of the colony and the character of the season may vary it a day or so.



a, convex cap; b, b, the extension of the cell.
Finished Queen Cell, scaled over.

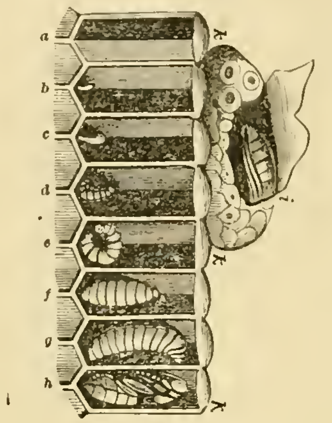
When the embryo queen is nearly mature, within 12 to 16 hours of emerging, the bees begin to demolish the exterior compartment, or extension of the top of the cell, reducing it to a level with the outer edge of the cap of the cell proper. The convex cap being then very prominent, is very liable to be injured, and to protect it from injury the bees coat it with a fresh layer of wax, making it nearly as thick as the walls of the cell.



a, the convex cap.
Ripe Queen Cell, with the exterior compartment removed.

The young queen pierces a hole through the edge of the cover with her mandibles, and then makes a circular cut along its periphery. Being nearly detatched from the cell walls, the cap drops, opening a circular passage, through which the young queen emerges.

From the egg to the queen emerging from the cell, takes 16 days. She is then a virgin queen, and for 5 or 6 days she moves around in much the same manner as a worker bee, helping herself to honey from uncapped cells.



Eggs and Brood.

a, empty cell; b and c, eggs; d, e, f and g, various stages of the larvae; h, pupa; i, pupa of queen in queen cell; k, k, caps.

About the 5th day, if the weather is pleasant, she may be seen crawling about the entrance of the hive, and if the next day is propitious, she may try her wings some from the alighting board. She will appear somewhat excited, but after awhile she will mount up and circle around, increasing the distance each time, to mark the hive, and insure a safe return from her wedding flight.

In the warmest part of the afternoon, when the drones are flying, she will spread her beautiful wings and soar into the air to mate with a drone. If successful, she will bear the marks of it on her return; if not, she will, after a time on the same day, come out again and again, until it is accomplished. She will then return, going quietly into the hive, and in a day or two she will commence to lay; so that, generally, from 8 to 9 days after emerging from the cell, the queens are laying. Should the weather be unfavorable, and she fails to meet the drones within about 20 days, she will have failed in the object of her existence, and become only a drone producer.

The drone passes 3 days in the egg, about 6½ in the larval state, and changes into a perfect drone in 24 or 25 days, counting from the egg.

The worker, after passing about 3½ days in the egg, is hatched—a small white worm, grub or maggot—and is called larva, (a Latin word signifying a mask, for the bee is concealed or hidden in that state). It remains in this state about 5 days and then the bees seal the cell over; the larva then spins around itself a silken covering, called a cocoon, which occupies about 36 hours. In this third stage it is called a nympha, pupa or chrysalis, in which state it remains until the 21st day, counting from the time the egg was laid, when it emerges from the cell a perfect working bee, and is called an imago.

The cocoon, left behind, forms a lining to the cell, and for this reason it is best not to use the same breeding comb too long, for each cocoon left behind imperceptibly, but not the less really, diminishes the size of the cell for its future occupant, and prevents the bees from attaining their full development of size.

When the weather is cool or the colony weak, the development is retarded to a greater or less extent—the heat should be above 70° Fahr. for the best results. Both the workers and the drones, on emerging from the cells, are rather helpless, and are soft, downy, and light in color.

The workers and drones spin complete cocoons, inclosing themselves perfectly, but queens inclose only the head, thorax, and first ring of the abdomen—evidently to provide for the means of being destroyed by a rival queen, before emerging from the cell, should it become desirable to do so.

In the contemplation of this exceedingly interesting subject is found much food for thought and meditation, and for instructive lessons none can rival the marvelous transformations that insect life undergoes in its processes of development! The repulsive maggot of to-day, may to-morrow be the active little fly, visiting leaf and flower, in merry and sportive mood! The repugnant caterpillar of to-day, may to-morrow, as a chrysalis, be decked with green and gold, awaiting its speedy transformation to the butterfly, of brilliant tints and gorgeous beauty.

This is not a whit more wonderful than are the transformations from the egg to the tiny larva, from the larva to the pupa, and from the pupa to the fully developed honey bee, with its wondrous instincts, and marvelous habits! The student never ceases to wonder and admire, as he turns over leaf after leaf of the "book of nature," devoted to this interesting insect. Indeed, there is a fascination about the apiary that is truly indescribable; but even that richly rewards the apiarist for all the time and labor bestowed upon it. Every scientific bee-keeper *is* an enthusiast. The wonderful economy of the bee hive, from its very nature, presents to the thoughtful student, both admiration and delight at every step!

* * *

☞ Mr. Root, Editor of *Gleanings*, has several times very kindly noticed the Weekly BEE JOURNAL, contrasting with some other bee papers who have never said a word concerning it. The July number of *Gleanings in Bee-Culture* says:

> The AMERICAN BEE JOURNAL has completed its first 6 months as a Weekly, and has proven a success, as it could not well help being, with the able way in which it is gotten up—clean nice print, good paper, and brim full of "bee-talk" that could not all very well find place in a monthly.

Thanks! *Gleanings* stands at the head of the Monthlies, and is filled with interesting reading for bee-keepers, especially beginners. The BEE JOURNAL is often obliged to disagree with *Gleanings* on many things, but we desire *always* to be on *good terms* with all co-workers, and wish them abundant success.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Bee Notes for July.—Mr. L. C. Root, in the *American Agriculturist*, gives the following hints for this month:

> It is all important that everything should be in proper condition for securing surplus honey during the present month. Basswood will begin to blossom about the middle of the month in Central New York and similar localities. We expect our largest yield of best honey from this tree, hence the necessity for abundant storing space, whether box or extracted honey is to be secured. If box honey is desired, supply each box with a starter of either white comb or comb foundation. The amount of honey which can be secured by using full cards of comb foundation will be found much greater than when only starters of natural comb are used. The very great advantage to be gained by the use of comb foundation, both in the brood-chamber and surplus boxes, should be investigated by every bee-keeper who reads these notes.
>
> If the surplus honey is to be taken with the extractor, a sufficient number of good extra combs must be supplied. These may be added at the sides of the brood-nest, or at the top of another story to be added to the hives. Another advantage in the use of comb foundation is seen in case there is not a sufficient number of surplus combs at hand, the frames may be filled with foundation, which will soon be formed into combs and filled with honey. When these are filled the honey may be thrown from them by the extractor, and the combs be returned to the hives to be refilled. Boxes should be removed promptly when completed, as the appearance of the honey is injured if left upon the hives, where the bees travel over it.

Very Little Swarming.—The *Texas Patron*, published at Crockett, Texas, says:

> We are in receipt of the American Bee Journal, a Weekly, published by T. G. Newman, at Chicago, at $2 a year, in which we find proceedings of State Convention of bee-keepers, held at McKinney, Collin Co., Texas, on the 12th of last May. We have perused this issue with much interest. To a bee-keeper there is no publication more useful and interesting. After diligent inquiry about bees in Texas we report the following facts: During the past season they have hardly swarmed at all. There has not been an average of a swarm to a dozen good colonies, and in most cases they have gathered but little honey; not enough to pay for robbing. And singular to tell, all they have gathered is granulated. Most of it is solid—candied, as it is called. We do not suppose there has been one pound of good fluid honey in our market this season. This is a very remarkable fact, and is worth the attention of the scientific.

Bees Poisoned by "Foxglove."—Dr. A. Paterson, in the *British Bee Journal*, says:

> Last summer I had a large quantity of foxglove (*Digitalis purpurea*), cultivated varieties, and very beautiful in bloom, at the same time a quantity of canterbury bells growing near them, and in flower. I was much struck to find that a great number of the working bees were lying dead in the flowers of the canterbury bell. Day after day I watched, with much interest, the movements of the bees, and found that after they had fed some time on the flowers of the foxglove they became stupid, and after leaving the foxglove they went into the flowers of the canterbury bell, and, as a rule, died shortly after. Query—Did they die from the poison got in the foxglove alone, or did it depend on their coming in contact with the flowers of the canterbury bell? I could not find any dead bees on any other plant or on the ground near by.

The Honey Crop in Canada.—The *Canadian Farmer* gives its views on the subject in the following language:

> What the honey harvest of this year will be it is impossible to say. So far the weather has been unfavorable to a heavy honey flow. In many parts of the country not a shower moistened the earth during the proverbially showery month of April; neither were the May flowers stimulated to growth by refreshing rains, and up to the present writing, June 15, we have had but one shower this month. To make bad worse, the northern part of Ontario was visited with a scorching frost in the beginning of June, which cut down every tender thing, and some of the more hardy plants and trees suffered not a little from its effects. White clover, the principal source of June honey, was badly blackened, its vigor checked, and its honey producing powers doubtless injured. All this taken in connection with the immense decrease in bees from winter losses point to the fact that the honey crop of 1881 will be a short one. Nevertheless, if we are yet visited with timely rains, white clover, Canada thistles, sumach and basswood may yield their wonted quota of the nectar.

Fertile Workers.—The *Indiana Farmer* remarks as follows on these pests to the bee-keeper:

> Colonies that are allowed to stand queenless, for any length of time, without brood and eggs from which to rear queens, will be very apt to contain fertile workers. The evidence that these pests have taken possession will be found in the promiscuous manner in which the eggs are scattered around in the combs, sometimes one, but oftener 2 or 3 in each cell, which will only produce drones; although the bees will build queen cells around them in the endeavor to rear a queen. The only remedy then is never to allow a colony to go any length of time without a queen, or eggs from which to rear one. A colony containing fertile workers will neither accept a queen if given them, nor rear one if brood is given them for that purpose. There is no way to distinguish the egg-laying workers from any of the others, unless you should see them in the act. The quickest and easiest way to dispose of these pests is to take a frame of brood with adhering bees, and place in an empty hive on the old stand, remove the old hive some distance away, take out the frames, shake all the bees off on the ground, and they will return to the old stand and go to work without further trouble.

Glucose for Wintering Bees.—Our readers are well aware of the persistent war we have made against the use of glucose or grape sugar for feeding bees. Some 2 or 3 bee periodicals have advocated its use, but at last Mr. A. I. Root, its chief advocate, is convinced that it works disaster, and in *Gleanings* for July (page 321) he says:

> As grape sugar seems, without question, to "make many of my brothers to offend," I will, for the present at least, drop it....In the next edition of the "A B C," and also in our Price List, I will....advise against the use of grape sugar.

In our next issue we will give his reasons for coming to this conclusion. *Gleanings* has come to hand just as we are ready for the press, and we can make no further allusion to it this week.

SELECTIONS FROM OUR LETTER BOX

Bees are just Booming.—I have taken off more honey this season up to date than for 3 seasons before, being an average of 41 lbs. per colony, and one swarm from each colony. Basswood is just coming into bloom; we have an abundance of it and it will certainly be very full of bloom. White clover is plenty, and is rich with honey this season; last year it was a failure. I expect to have a good report to make at the end of the season. M. H. Wolfer.

Richmond, Ind., June 25, 1881.

Splendid Honey Season.—Bees are doing well in the sotheastern part of Indiana; they are commencing on the basswood, which is in full bloom. There is a splendid white clover crop. This season is unusually good for white clover and basswood. I shall report the amount gathered at some future time. J. W. Sturwold.

Haymond, Ind, June 27, 1881.

How to Construct a Bee House.—As I want to build either a cellar or warm house this fall, for fruit, potatoes, and bees, which will be the best and cheapest? If a house, what material is best, brick or lumber, and how thick the walls? Will a warm house above ground do to winter bees in as well as a cellar? I have seen 3 different styles and sizes of hives all called the Langstroth hive; now please state what is the regular Langstroth hive length, width and depth? Will those who have had experience in building cellars and bee houses please give their opinions in the Bee Journal? Success to the Journal and its editor.

Mansfield, Ind. D. S. Kalley.

[The standard Langstroth hive is 14⅛x18⅜ inches inside, and 10⅞ inches deep, and contains 10 frames, 9⅛x17⅝ inches, outside measure. Will some one who has built a winter repository that has been a success during the past winter please give the inquirer the manner of construction.—Ed.]

Bees Doing Well.—Dear Journal: Yes; I want you every week, and here is a dollar to pay for your visits the remainder of the year. If I should fail to remit when my time is out, do not take my name off the books, for I want to see you while I live and handle bees. Bees are doing well now; they keep me busy attending to their wants. There has been plenty of rain through this month, but through the entire month of May it did not rain enough in this place to lay the dust. L. Eastwood.

Waterville, O., June 28, 1881.

Liquid Grafting Wax.—As Mr. Case wants a receipt for grafting wax that is not composed in part of beeswax, I will give it. Melt one pound of common rosin over a gentle fire, add to it one ounce of beef tallow and stir it well, take it from the fire, let it cool down a little, and then mix with it a tablespoonful of spirits of turpentine, and after that 7 ounces of very strong alcohol (95 per cent.). The alcohol cools it down so rapidly that it will be necessary to put it once more on the fire, stirring it constantly. Still the utmost care must be exercised to prevent the alcohol from getting inflamed. The best way to avoid it is to remove the vessel from the fire when the lumps, that may have been formed, commence melting again. This must be continued until the whole is a homogeneous mass, similar to honey. It is very cheap, very easily prepared, and when corked up in a bottle with a tolerable wide mouth, keeps at least 6 months unaltered. It is laid on in as thin a coat as possible, by means of a flat piece of wood. Within a few days it will be as hard as a stone. In addition to all the advantages indited above, it is not in the least affected by the severe cold of our winters; it never softens or cracks when exposed to atmospheric action or changes. There is no better preparation for covering the wounds of trees. Anyone trying this receipt will please report through the columns of the Bee Journal; I have never used it myself. L. A. Lowmaster.

Belle Vernon, O., June 28, 1881.

Prospect for Abundant Honey Crop.—The Journal is a necessity and I do not want to do without its weekly visits. I lost 3 out of 14 colonies of bees last winter—but about ⅔ of all the bees in Iowa County are dead. R. saved only 22 from 80; H. 1 from 100; and some lost all they had. Bees are doing well now. White clover is abundant, and linden is commencing to bloom. E. H. Norton.

Marengo, Iowa, June 30, 1881.

My Texas and Arkansas Trip.—I reached home on June 4, having been absent in Texas and Arkansas 27 days. I wrote you last from Honey Grove, Texas, where I visited an apiary of 90 colonies of bees. At Clarksville I met Mr. J. W. Baker, a genial, whole-souled bee-keeper, who is doing much to help on the cause of scientific bee-culture. Bees do well here and give large yields of surplus honey. I went to Little Rock, Ark., by way of Texarkanna, over the Pacific and Iron Mountain Railways. Little Rock, the capital of the State, is pleasantly situated on the west bank of the Arkansas river, has a population of 22,000, and fine railroad facilities. There are no large apiaries there, but quite a number of small ones. Prominent among them are E. H. Chamberlain, S. B. Kirby, W. N. Parrish and S. H. Nolin. The latter is editor of the *Spirit of Arkansas*, a paper devoted to the farm, home, and work-shop. Bees pay a large dividend on the capital invested. Little Rock is a beautiful city, and with its superior railroad facilities, will grow. The railways are developing the country. The officers of the Iron Mountain, the Fort Smith & Little Rock, and Little Rock & Memphis Railways have our thanks for courtesies shown, as representative of the North American Bee-Keepers' Association.

Dr. W. W. Hipolite, Devall's Bluffs, Ark., is a progressive bee-keeper, has an estimable wife and children, and has a model apiary. He uses 1 and 2-pound sections, and says he cannot supply the demand at Litte Rock at 20 cents a pound. While here we visited the apiary of Mr. A. W. Sory, who has 70 colonies of bees in Langstroth hives, run for comb honey, in 1 and 2-pound sections, he ships to Little Rock and Hot Springs, where he finds ready sale at 20 cts. per lb. Mrs. Sory is well posted in bee-culture, and equally interested in the management with her husband. Arkansas is one of the best States in the Union for honey production. It has excellent climate and rich soil, with many honey producing forest trees. At Memphis we found white clover as well as in Arkansas. Bees do well in the Mississippi Bottoms, but when they swarm are apt to go to the woods, for trees are easy of access. On our way home we passed through Western Tennessee, where bee-keeping could be made quite profitable. On account of poor health we were unable to attend the Convention at Mexico, Mo., which we much regretted, feeling a great desire to meet them in council.

N. P. Allen.

Smith's Grove, Ky., June 8, 1881.

How the Bees are Doing.—Last fall I had 74 colonies and lost ½ of them during the winter; which dwindled to 14 in the spring; 6 of the best have already gathered 50 lbs of honey each; the others are in fair condition. I had 4 swarms, and 6 more are ready to swarm, being very populous. Basswood yields little honey; white clover is late but good. G. W. Horner.

Dubuque, Iowa, June 27, 1881.

CONVENTION NOTES

Read before the S. W. Wis. Convention.

The Location of an Apiary.

EDWIN FRANCE.

Of course, keep the bees at home if possible, as it will save a great deal of extra work and travel to take care of them ; but we are not all situated in a good location to keep bees, as it is a positive fact that some locations are better than others for bee-keeping. Because a man does not happen to live in a good location is no proof that he cannot be a successful bee-keeper. There are some bee-keepers who have so many bees that it is more profitable to keep them in several places. I have been in the bee business quite a long time, and have had occasion to locate my apiaries in several places, and I find a great difference in places. There are more things to be thought of than one would at first suppose, and there is a great difference between a farmer keeping a few bees for his own use, and making a regular business of it, where a man wants to keep all his location will support.

The first thing to look after is the pasturage for the bees, something that will produce good honey and plenty of it. Our best and most salable honey comes from the white clover ; next basswood ; then buckwheat. For early spring work we want willows and fruit blossoms, with a good range of fall flowers for late work. The more we have of all these good things together, the better, as far as honey is concerned. But there are other things to be considered ; we must have some natural protection for the bees, something to break off the wind—especially the north and west. Certainly, if we intend to winter on the summer stands, it is of more importance to break off the winds than to keep off the snow. Do not locate on a piece of ground facing the north, and if there are shade trees, so much the worse. There is another point: Do not put the bees close to a public road, where there is much travel—it will not do. The bees will make trouble, people will get stung, horses will get stung and be very likely to run away and perhaps kill some one and smash up things. I had 50 or 60 colonies of bees one year close to a road that was traveled very much. There was a great deal of growling and threatening, and some stinging and hard feeling, etc. I went through the season without paying any damages and then moved them to another place further from the road. Again, if we keep our bees so close to other people's land that they will be troubled by them while at home or at work on their own land, they will not like it and it will make trouble. We should always keep on good terms with our neighbors.

I see by our bee-papers that one bee-keeper has become involved in trouble about his bees making free with his neighbor's grapes. The bees worked on the grapes, the grape man became angry and destroyed some 60 colonies of bees with poison, and they are now in law about it. So I would not locate an apiary near a vineyard of any extent. If the same man owned the grapes and the bees, there would be no trouble. I raise grapes and bees on the same ground, and sold 2,000 lbs. of grapes last year. I picked the most of the grapes myself. There were a good many bees at work on the cracked grapes, sucking the juice ; but they never offered to sting. They would always fly away when I jarred the vines. After I had picked my basket full, I set it in the shade and put a cloth over it to keep the bees away from the grapes while I picked more. Bees never open a grape themselves, but they will suck the juice from those that are opened from any other cause, and it is easy to see how they would annoy a man that had no interest in the bees, especially if he was afraid of them, which is the case sometimes. It seems strange to us who are used to handling bees, to see a man squirm and dodge around, and get so nervous about a little bee ; but there is a great deal in getting used to anything.

When we locate away from home we must take into consideration the time it will take to go and come, the roads over which we must travel, and if there is water handy for the bees to drink—some natural stream or springy ground ; if there is not, you must supply them with water in some way. If this is not done, the bees will be sure to trouble the family at the house about the pump or well bucket, for water they must have, and they will get it where they can the easiest. I find it is hard to find the right kind of location for the bees, and find the right kind of a family living on it ; we must leave them under the watchful care of some one, and it will not do to leave them with anybody and everybody. It must be a good, honest family ; they must not be tinkering with the bees themselves, and as far as they can prevent it, not allow anyone else to meddle with them. I want to do or oversee all the work with my bees myself, and it is not necessary to see them oftener than once a week or 10 days, in the busiest part of the year, and when they are fixed up in the fall there is no more to do with them until spring.

There are some neighborhoods that would be very risky to locate in on account of thieves ; but on this score I have had but very little trouble so far. One year I had 2 hives opened, and one of them was entirely destroyed. There were some combs of honey taken out, the hives left open, and the other bees took out the rest of the honey. But this trouble happened in the yard that I had so close to the road. Some of the boys thought they would get even with me for the trouble they had in passing along the road. As to over-stocking any location there seems to be a great difference of opinion. I have always kept more bees in my home yard than I have in any other yards, but have never kept much over 100 there. When there are 100 at home and forty or fifty in some other yards, I could not see that there was any difference in favor of the few ; but I do think that any place can be over-stocked with bees. I do not think it would be best to locate an apiary in a neighborhood where there were 100 or 150 colonies located already—that is to make a specialty of keeping bees. If I was living near 150 or 200 colonies of bees, with some other business, and wanted to keep a few bees, I would not hesitate about it at all. Mine would have as good a chance as the rest. I think 100, or at most 200, in a range of 3 or 4 miles is a plenty ; but of course it depends altogether on the amount of bee pasturage that a location contains. Some places would keep 500 well, when 100 would starve on some other location equally as large.

Union (Ky.) Convention.

The Union Bee-Keepers' Association convened at the apiary of Capt. S. T. Drane, Shelby county, Ky., on Tuesday, June 21, President Dr. Brown in the chair. After the transaction of some business, including the receiving of two valubale members, viz: Esquire J. G. Byars and Mr. Bird Smith, of Simpsonville, the Rev. Mr. Crutcher, of Eminence, was invited to preside over the deliberations of the meeting.

A letter from Dr. N. P. Allen, of Smith's Grove, Ky., President of the National Association, and also of the Kentucky State Association, was read by the Secretary. A vote of thanks was tendered Dr. Allen for his kindly greeting and words of good cheer.

Mr. G. W. Demaree, of Christiansburg, Ky., spoke in response to Dr. Allen's letter. The speaker said that he had the honor of being personally acquainted with Dr. Allen ; that he was a gentleman of culture in every sense of the word; that it was not necessary that he should look to the honey bee for his daily bread ; that he owned broad acres over which fine cattle roamed, yet he takes a deep and enthusiastic interest in the culture of the honey bee, and to this end he has traveled thousands of miles for no other purpose than to dispense useful knowledge concerning scientific bee-keeping. The speaker said that when he saw such men as Dr. Allen, men of high standing, socially and intellectually, earnestly grappling with the knotty science of bee-culture, he felt sure that the dark mist of the past would soon be dispelled, and hundreds of men, and women, too, will be able to make an honest and easy living from the products of the "busy bee."

Dr. Brown, of Eminence, Vice-President of the Kentucky State Association, and President of the Union Association, spoke in behalf of more thorough organization for the purpose of acquiring knowledge of the science of bee-keeping, urging better attendance upon the sessions of the several societies in the State. His remarks were well received.

An interesting discussion concerning bees and their product followed, participated in by a number of gentlemen present.

A wise feature in the programme was the practical lessons taught by the actual manipulation of bees and bee-fixtures. Honey was taken from the hives in frames and "uncapped" with the uncapping knife, placed in the honey extractor and the honey was extracted. Comb honey was removed from the surplus apartment of hives, queens were hunted up and exhibited. All in the sight and presence of ladies and gentlemen, without any of them being disturbed by the bees, though no protection was resorted to except a bellows bee smoker which was used to subdue the bees.

A grand feature of the occasion was the spreading of a sumptuous repast, consisting of roast beef, ham, bread, pickles, butter and milk, and honey white as the drifting snow, and the hot cup of coffee. The presiding genii were the two Mrs. Drane and other ladies whose names we did not learn. Suffice it to say, that under those tall thickly set trees, around which the woodbine twineth in real and artistic beauty, the "picnicers" did ample justice to the occasion.

A vote of thanks was tendered Capt. Drane for the princely manner in which he entertained the Association and others. The meeting then adjourned to meet at Shelbyville, on the first Tuesday in October next.

G. W. DEMAREE, *Sec.*
Christiansburg, Ky.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct, 6—Union Kentucky, at Shelbyville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
11, 12—Northern Michigan, at Maple Rapids.
O. R. Goodno, Sec., Carson City, Mich.
11, 12—Northeastern Wis., at Berlin, Wis.
12—Central Ky., in Exp. B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
25, 26—Northwestern District, at Chicago, Ill.
C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
1882.
Jan. 25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

☞ The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting Aug. 30, at Rock City, Stephenson Co., Ill. JONATHAN STEWART, *Sec.*

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. GOODNO, *Sec.*

SPECIAL NOTICES.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

☞ When changing a postoffice address, mention the *old* as well as the new address.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

Photographs of prominent Apiarists —Langstroth, Dzierzon, and the baron of Berlepsch.—Price 25 cents each.

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

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	Publishers' Price.	*Club.*
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and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
Bee-Keepers' Magazine (A.J.King)	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50	2 35
Kansas Bee-Keeper	2 30	2 15
The 7 above-named papers	6 05	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T.G.Newman)	2 40	2 25
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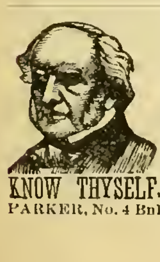

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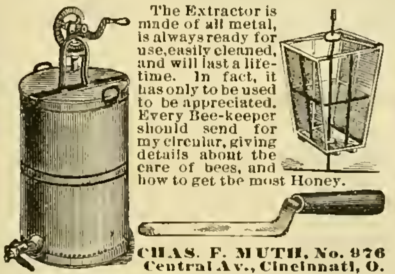

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Sunny Side, Napa, California, June 10, 1881.

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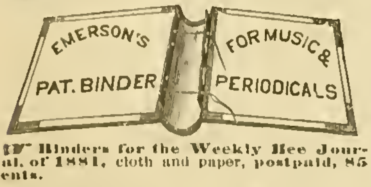

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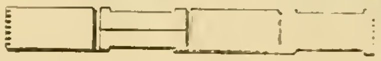

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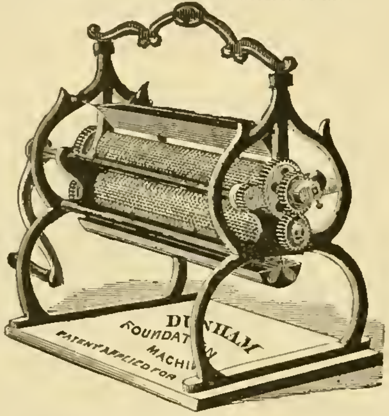

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Austin, Minn., May 6, 1881. F. A. TICKNOR.

From American Bee Journal of May 25, 1881: My bees are all Italians, and wintered without loss on summer stands. AMANDA PARSONS.
I furnished this lady all the queens she has.

The queens you sent me are the very best I ever bought, and their worker progeny the nicest I ever saw. J. H. WALLACE.
Lucas, Ohio, Aug. 10, 1880.

I have the finest swarms that can be found anywhere, from the queens you sent me this summer.
Cobleskill, N. Y., Sept. 23, 1880. B. VANWIE.

Your queens are very well thought of here; one of my neighbors has one that he declares he would not sell for $150. GEO. D. ELDERKIN.
Chicago, Ill., Sept. 27, 1880.

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Duncan, Ill., Sept. 25, 1880.

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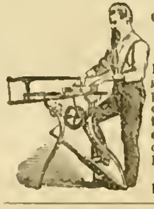

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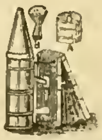

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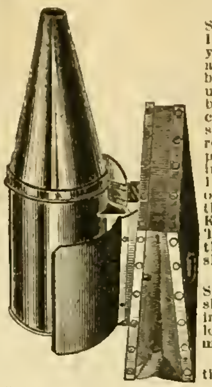

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ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., JULY 13, 1881. No. 28.

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Published every Wednesday, by

THOMAS G. NEWMAN,

Editor and Proprietor,

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CORRESPONDENCE.

The Rev. W. F. Clarke.

On this page we give our readers an engraving of the Rev. W. F. Clarke, which will be recognized by those who know him, as a very good likeness.

Mr. Clarke is an Englishman, and was born in the city of Coventry, March 31, 1824. He was educated for the ministry, having been one of the earlier students in the Congregational College of British North America. Before going to college he spent a couple of years on a new Canadian farm, and there contracted that love of agriculture, which has been with him a strong, if not a "ruling passion" ever since.

Mr. Clarke bought his first hive of bees in the spring of 1864, with a view of investigating the secrets of apiculture, in order to fit himself to write on that branch of moral economy. In January of that year, he had undertaken the editorship of the *Canada Farmer*, owned by the late Hon. G. Brown, and published in connection with the *Globe* newspaper, the leading daily and weekly of the Dominion. He continued editor of that paper for 5 years, and during that time pursued the study of apiarian science with unflagging interest. He was one of the first to introduce the Italian bee, the honey extractor, and other improved appliances to the bee-keepers of Canada. He represented the Dominion at the Apicultural conventions held at Indianapolis, Dec. 21, 22, 1871, and at Cincinnati, in Feb., 1872, out of which by the harmonious blending of conflicting interests, the North American Bee-Keepers' Association, now so prosperous, was organized. Mr. Clarke held the Presidency of this body for 2 years, and, until laid aside by ill-health for a time, was one of its most active members and officers. On the death of the lamented Samuel Wagner, Mr. Clarke purchased the American Bee Journal, and, acting under the advice of leading bee-keepers, effected its removal from Washington, D. C., to Chicago, Ill., from which city the first number was issued in Jan., 1873. In the December following, the proprietorship of the Journal passed into its present hands, but Mr. Clarke remained the responsible Editor for more than a year subsequently, and continued to contribute to its columns for some time afterwards, until sickness compelled his retirement fronr that and all other literary work. Happily he betook himself to the recuperative influences of farm-life, regained his health, and for more than a year past has been able to perform his full share of professional and literary labor. In June, 1880, he became pastor of the Congregational Church, in Listowel, Ont., where he divides his time between the care of his flock, the Agricultural Editorship of the *Western Advertiser*, and *Montreal Witness*, and occasional contributions to a variety of periodicals. Of late he has resumed work on the American Bee Journal, and we hope hereafter to see his face and hear his voice at our annual conventions of bee-keepers as of yore.

Mr. Clarke has never practiced bee-keeping as a business, but wholly as a matter of scientific investigation and interest, 24 colonies being the most he has ever had at one time.

Wm F. Clarke

For the American Bee Journal.

The Honey Crop in Central N. Y.

G. M. DOOLITTLE.

I see by the reports in the Weekly Bee Journal, that most of the readers are having a prosperous season, and I wish it was so with all; but so far, little honey has been obtained by the bees in Onondaga county, N. Y., and reports of like character are coming in from many portions of this State. Spring opened with us about April 20th, at which time we found the winter and spring had worked more ruin to our bees than any season ever known before. After getting things in order, I found the best I could do was to unite my bees down to 30 colonies, for they stood as follows: 1 good colony, 10 fair to medium, and 40 weak to very weak. After reducing all to 30 in number, many of them were still found to be quite weak, and had to be helped by other colonies. Still, although regretting the great loss, I have been thankful it was no worse, when I received so many reports from parties who had lost all. Pollen came in quite plentifully about May 1st, from elm and soft maple, when the work of building up our bees commenced in earnest. On the 12th, golden willow gave the bees a taste of honey, from which our best colony gave us 5½ lbs. of extracted honey. Right here I wish to say that I know of no tree or plant that helps the bees more than the golden willow. It comes so early, giving the first honey, which seems to give the bees new life and activity. There are probably 50 smallish trees in range of our bees, and they generally make a gain of from 5 to 9 lbs. per colony of good honey from it, while in bloom. We value this willow more from the fact that it does not incline to throw up sprouts or shoots as most of the willow tribe does, but grows into a tree similar to the basswood, although it never attains a large size. It grows readily from cuttings, and will thrive in all moist (not wet) places.

But to return: May 21st apple trees commenced to bloom, and as the weather was generally good, our best colonies stocked up with new honey; the best one (which I concluded to work for extracted honey) giving 19¼ lbs. The weather during May was extremely warm, the mercury going as as high as 92° in the shade.

June 1st, owing to the continued warm weather, white clover began to open, and as the ground was thickly covered with it (as a result of the favorable winter for all herbage), I confidently expected as good a yield of honey from clover as in 1877. But alas! on June 4th the weather changed, and it has been cold, cold, rain, rain, ever since. On June 6th there was a frost which killed grapes, and even our strawberries after they were nearly one-half grown. On the 14th we had another frost, with a week of cold, cloudy weather, so the bees scarcely looked out of their hives. It is warmer now, but we have rain nearly every day.

I have taken 28 lbs. of clover honey from the colony for extracted honey, and if it should come warm and dry soon, a few days' good yield might yet be obtained; otherwise, basswood is our dependence for honey for 1881.

It has been the worst time for queen-rearing I ever saw, for the cold nights chilled most of the brood in newly made nuclei. We now hope for better times, and dislike to give this dark side to the picture, but deem it no more than right that the readers of the Bee Journal should know that all does not always go smoothly in bee-culture, any more than in any other business.

I fancy I hear Mr. Miner and Mr. Thomas saying, "We told you so, when you were writing upward ventilation, and a good season with your dwindled down colonies, and now you find it as we told you." Well, gentlemen, you did well in your discussion of the matter, and I am willing to let it drop where it is, for if I should write further trying to prove myself correct, we should only get into a controversy instead of a friendly discussion. A friendly discussion benefits all, as it gives both sides of the matter under consideration; but a controversy benefits no one, and is anything but tasteful to the readers of our much esteemed AMERICAN BEE JOURNAL.

Borodino, N. Y., June 27, 1881.

Why Did Mr. Root's Bees Die?

L. L. LANGSTROTH.

[The following article is taken from the July number of *Gleanings in Bee-Culture*. Mr. Langstroth wrote Mr. Root 5 questions, which, with the answers, are given in the article. The whole article will be read with interest.—ED.]

Your heavy losses in bees affect me painfully. While I admire your cheerful spirit under such reverses, I know that the failure to winter your bees is much harder to bear than the mere pecuniary loss. I speak from a vivid recollection of past experiences. Before I discerned what precautions were necessary for wintering bees successfully in movable-frame hives, I more than once found myself in the spring in a plight almost as bad as your own. I can fully indorse your explanation of some of the reasons why your reverses have been so much greater than those of some large bee-keeper in your neighborhood. I often met with great losses when my apiary was managed chiefly for the sale of Italian queens. At the close of a poor honey season my apiary often had many weak colonies. The temptation to winter every such colony which had a good queen was very great, as the demand at high prices for such queens in the spring was usually greater than could be met. It was only the fact that my location was a poor one for honey, and that I could get large figures for nearly all the queens that I could rear, that at all justified my course. If in addition to the queen business, the selling of bees quite late in the season by the pound had been practiced, the condition of my apiary after an unusually cold winter and late spring would probably have been very similar to that of your own.

I give some comments on your replies to questions which I sent to you.

1. "Did you spread the combs further apart?"

"I did not. Although recommended, so far as I know it has been mostly abandoned."

Mr. Harrison, of Buffalo, first called attention to the importance of keeping the combs in which the bees cluster for winter ⅜ of an inch further apart than the natural breeding distance. In the old box hives there are usually spaces in which bees can cluster in much larger numbers than in movable frames properly spaced for the working season. In the very cold winter of 1872-3 I wintered in the open air in hives only ⅞ of an inch thick, until February, a number of colonies which were estimated not to have over 2 quarts of bees per hive. All the bees of a hive were placed between 2 combs full of honey, which were kept nearly 3 inches apart, and they formed a single cluster, shaped like a ball. If the combs of these colonies had been left in their summer position, no amount of chaff used in any fashion could have saved them. Mr. J. S. Hill, of Mount Healthy, O., who wintered last season 112 colonies without losing one, and who has wintered on an average 80 colonies a year since 1868, without the loss of one, spreads the combs.

2. "Did you make winter passages in the combs?"

"Perhaps half of the combs have winter passages. I have never been satisfied it made any material difference."

In this you differ from those who have had the best success in wintering bees. Mr. Hill, for instance, never neglects this point, and I am satisfied that the power of passing from comb to comb through the heart of the warm cluster, besides saving the lives of many bees, greatly encourages early breeding. In the old box hive the holes around the cross-sticks for the support of the combs give the best of winter passages.

3. "Did you place burlap or any other non-conductor of moisture over the frames?"

"We used burlap, wood mats, and enameled sheets, but saw no difference in favor of either."

Whatever the material used for confining the bees below, it should, as a matter of course, permit the ready escape of superfluous moisture. With weak colonies in very cold winters, this is a point of great importance.

4. "Did you give the bees a good space above the frames for clustering in?"

"A part of them, perhaps nearly ½, had an empty frame, or a frame of stores placed over the cluster. Our Palestine bees went into this upper chamber and starved, having plenty of stores below."

Reference to the back volumes of the AMERICAN BEE JOURNAL show that Bickford's quilt (afterward improved by you) is credited by him to the successful experiments which he witnessed in my apiary. I discarded the honey-board in wintering, using, instead, woolen rags, old carpets, etc., through which all superfluous moisture could pass, while sufficient animal heat was retained, explaining at length that the principle was the same as using suitable bed covering to keep ourselves dry and warm in cold weather. I have always regarded the elucidation and application of this principle as a great advance in practical bee-keeping. The letters of Huber, published only a few years ago, show how much his bees suffered from dampness; and before I so fully expounded my ideas in the *London Journal of Horticulture*, our English friends found that they could not use wooden boxes with any satisfaction. My plans, as seen by Mr. Bickford, and very fully described in the AMERICAN BEE JOURNAL, not only gave this free escape of moisture without too much loss of heat, but especially provided an ample warm space for the bees above the frames, so that the cluster could contract or expand at will. This saved the lives of many bees which, in very cold weather, even with the best winter passages, often failed to regain the center cluster, and died because they could not keep up the necessary heat.

I believe that, even in such a winter as the past, that with winter passages, combs properly spread apart, and a warm clustering space for the aforesaid purposes, bees could be better wintered in the open air in hives ⅛ of an inch thick, than with any amount of chaff above, around, or below them, where these precautions are ignored; for in sunny weather such thin hives will warm up so as to dry out and allow the bees to reach their stores, while the chaff hives may remain cold and damp as a cellar. I will send you, in due season, an unpatented device used by Mr. Hill, for securing a warm nest above the clustered bees, which answers the end better than any one I have yet seen. Is there a man in all our northern country who can claim equal succeess with Mr. Hill in wintering bees? It hardly need be said that he is a pattern of skill, energy, and promptness. He has made his bees pay in a region where I think it is ordinarily more difficult to secure one pound of surplus than two in the more favored northern locations.

5. "Did you feed your bees for winter with a mixture of grape and cane sugar?"

"Only a part of them, as I stated on page 278."

I think your losses were owing in part to your use of grape sugar. It is not at all necessary that grape sugar should contain any impurities to make it a very hazardons food in such a winter and spring as we have just had. From its low sweetening power as compared with honey or cane sugar, your bees which used it were forced to eat more than they otherwise would have done, and thus to suffer from a greater accumulation of feces. You say, "Had our usual April weather come on, we should probably have saved about 50 colonies that we lost." Is it not highly probable that, with the weather just as it was, you might have saved many of those colonies, if they had not been forced to succumb under the excess of feces produced by the undigested starch which so largely enters into the composition of grape sugar?

In noticing my account of Mr. D. McCord's heavy losses from wintering his bees on a syrup largely made from grape sugar, you express surprise that he "should have done so foolish a thing;" but you published last fall his account of the mixture he proposed to feed, without a word of disapproval or caution. You also say, in June *Gleanings*, "I have never advised the use of grape sugar for wintering." Surely, friend Root, your memory is at fault in this matter. In *Gleanings* for October, 1880, page 489, Mr. Crowfoot, in a letter to you, says, "Will you please tell me what you would feed bees that have got just about half enough honey to carry them through the winter?....I have about 700 colonies of bees, with about half enough honey to winter on."

To this you reply, "If I had 700 colonies with half enough stores for winter, I would supply the deficiency with frames of candy made of coffee A and best grape sugar in about equal proportions. If it is less trouble to you to feed in the form of syrup, make the syrup as described in the "A B C." ....They may die with this feed, but they may also die with natural stores, as past reports fully demonstrate; but I think, if properly done, such stores are just as safe for winter as natural stores....Very likely the grape sugar that is made now would be safe of itself; but to be sure of being on the safe side, I would use half coffee A, as above."

Certainly you have sometimes cautioned your readers about grape sugar as a winter bee-feed; but there can be no doubt that, as in your reply to Mr. Crowfoot, you have fully indorsed it as a safe food to enter at least ½ into the preparation of winter stores. When you review carefully all your utterances, I believe not only that you will admit this, but that, with the experiences of the last winter, you will condemn its use for winter stores so plainly that no one can mistake your position. Perhaps it needed such a winter and spring as we have just passed through to *demonstrate* that no prudent bee-keeper can afford to use grape sugar as a winter feed in any proportions however small.

You say, "I am very sorry that grape sugar is used for bad or dishonest purposes; but even if it is, I cannot see why this should be a reason why we should not use it while rearing queens, and bees by the pound." So enormous are the frauds practiced by the adulteration of our commercial sweets by grape sugar and glucose, that it seems to me that bee-keepers should lend no countenance in any way to those who make them. Already such suspicions have been awakened as greatly to curtail the sale of pure honey at remunerative prices. On selfish motives alone, those who deal in honest honey, and those who have the control of our bee periodicals, should set their faces as a flint against articles made almost exclusively for bad purposes.

You say that the Buffalo Grape Sugar Co. have produced a sugar which "is as pure and simple a sweet as the best grades of maple sugar." Have you any warrant for such an assertion? and even if you had, is it right for you to call down a blessing from heaven upon a company which is making such enormous profits by selling their products almost exclusively to men who, by their adulterations, are cheating the poor man in his honey, candies, syrups, and sugars? If ever grape sugar and glucose are made as pure as the best maple sugar and syrup, and it becomes desirable to mix them with our other sweets, let them be offered at reasonable prices under their own names, so that we can do our own mixing; or let the mixtures be sold as such for what they are worth.

Friend Root, you have gained a host of warm friends by your candid admission of mistakes into which you have fallen, and by your readiness to notice improvements of others, even when they have superseded what has cost you much time and money; nor have you, from a false pride of consistency, been wont to persist in advocating what time has proven to be erroneous. It seems to many of your best friends, however, that on this grape sugar question you have acted under the influence of prejudices which have strangely warped your better judgment. We cannot question your sincerity, and only hope that, when you weigh well this matter in all its bearings, you will feel that you ought to enlist the great influence of your name and journal against a business which, as it is now conducted, enables unscrupulous men to commit such monstrous frauds.

Your sincere friend,
L. L. LANGSTROTH.

Mr. A. I. Root's reply to the above article is as follows:

May the Lord bless you, my good kind friend, for your frank and faithful way of taking your old friend to task. I certainly had forgotten giving the advice you quote, and felt sure that I had never said anything favoring grape sugar so strongly for wintering. At the same time, I have no reason for thinking it any worse than stores of honey. More than 10 years ago we had abundant proof of the advantages of sealed stores of coffee A sugar syrup over natural stores, and the past winter has abundantly corroborated it again. I have always sold grape sugar under its true name, and, as far as I know, so also have the manufacturers of whom I bought it, and also those to whom I sold it. If the experience I have had of the world is worth anything, I am sure I am right in feeling that the unjust (and I might say foolish) prejudice against grape sugar is going to pass away, and it will come out and stand as safely as a valuable product from Indian corn as does starch. Evidences of this are now scattered through our papers. Notwithstanding this conviction, as grape sugar seems, without question, to "make many of my brothers to offend," I will, for the present at least, drop it. I feel sure we shall winter better next winter, but I think it will be greatly due to something more important than the substitution of granulated sugar for grape, viz: giving the bees more of my brains individually. As an excuse and aplogy to our readers for the inconsistencies friend L. has so kindly pointed out, I would say that I am getting to have a great business on my hands. In my zeal for getting boys and girls to work (that immortal souls may be saved), a great traffic has opened in supplies. Brains are so much needed at every turn, and so many points are gone over in a single day, that I am no longer able to remember what I have written and advised, as I did a few years ago. In the next edition of the "A B C," and also in our price list, I will, at least for the present, advise against the use of grape sugar.

For the American Bee Journal.

Observations about Several Things.

G. W. DEMAREE.

Mr. Moon, in his criticism on my article on the purity of the Italian race, disposes of the troublesome question of "color" in a very convenient, if not a very logical way. He tells us, in language which seems to indicate the loss of patience, that the idea that color has anything to do with the purity of the Italian "is all bosh."

I have to say that if Mr. Moon will point out a single case in all animate nature wherein "color has nothing to do" with the identity and purity of the species of animals, fowls, and insects, I will confess that he, at least, has made a new discovery. If he should tell us about a white blackbird, or of a black yellow-jacket, would there be any "bosh" about that?

The Italian is classed with the yellow or light-colored race of bees. Now if we discover bees among them as black as night, or any material variation in color, do we not reason logically when we conclude that it is an out-cropping, the result of mixture of blood? We prefer reason to mere assertion. The 3-band test of purity, though perhaps the most reliable of any single feature yet discovered, is, nevertheless, very unsatisfactory. Are we to accept as true the absurd and illogical doctrine, propagated by some of our vendors of queens and bees, that a queen whose progeny must be filled with light-colored honey and placed upon a window in order to exhibit the faint outlines of 3 precious bands, is just as pure as a queen whose progeny shows the orange-colored 3 bands under all circumstances? I, for one, do not accept it. There are degrees of purity, and when we admit this much, we admit, in fact, that the race as a whole is not pure in the sense of being unmixed. I wish it understood that I do not value the Italian bee, because of its sporting character,—but rather the more while I may make my own selections.

"Dysentery" is a trouble rarely ever seen in this climate, apparently because our bees can usually take a flight once in every week or two. I have never seen but two cases that amounted to anything, and one of them was caused by approaching starvation. The colony was cured by feeding. Dr. Southwick's "starvation theory" is just as reasonable as that of the other bee-doctors who attempt to find just *one* cause for the disease.

I am sorry that Mr. Heddon asserts that bees will attach the comb to wood separators, because it indicates he writes about some things about which he knows but little. I have used wood separators for several years, made of poplar, $\frac{1}{3}$ inch thick, nicely dressed, and have to see the first comb injured by being attached to the separator. I prefer wood to tin, because the former absorbs the moisture, while the latter condenses it.

Mr. Doolittle's advice to breed from the queens whose colonies produce the most honey is a good "theory," but, in my opinion, poor practice. Condition has a great deal to do with the working capacity of a colony of bees. In 1878 I had a colony of so-called dark Italians, which ran right off from my pretty light-colored bees, and I was ready to breed from her exclusively. Well, in 1879 she was beaten by 2 of her light-colored sisters of the same age, and I changed my mind. I have found that all the prodigies in the way of queens which I have had the good luck to own were daughters of my fine selected queens, and not one of them were capable of transmitting her energy to her queen posterity with any certainty. I see no reason why we should discard the established rules of stock breeders, *i. e.*, breed from the purest stock rather than from accidental specimens.

One of my queen-rearing colonies "balled" and killed their queen when she returned from an unsuccessful bridal trip, the other day.

Christiansburg, Ky.

For the American Bee Journal.

My Report on Wintering.

D. A. JONES.

As I could not give my personal supervision to the preparing of my colonies for winter last year, I consider I have been very fortunate. My men have all been trained by myself, yet I prefer to look more closely after preparing them than I was able to last fall. At one of my bee farms, about 3 miles north from my home apiary, William Cause, manager, there were 162 colonies placed in the sawdust wintering house, and 151 put out in the spring in good condition; but 4 of those that died, starved; they were Palestine bees, and the queens had bred until all their stores were gone; 2 were drone layers, 1 a very small nucleus, and the others were the poorest ones, especially in young bees.

At my bee farm, northeast of my home apiary, about 4 miles distant, where there were over 200 colonies, 9 died, and 3 were nearly gone, so that they had to be united with others.

Our house apiary, where there were nearly 300, the loss was somewhat greater, but that was owing to selling so many bees late in the fall, and having only old bees in the hives. Then to make matters worse, about 50 queens arrived from the East, very late, after winter had set in, and in some instances, I took a comb from each of several colonies, with bees to form nuclei for them; others we divided, and in still others we removed the old queens and introduced the imported ones, thus disturbing and breaking up the cluster of the colonies, without giving them a subsequent flight for many months; they suffered very much.

All good colonies that were not tampered with late, came through safely, where they had stores enough. I hope to be able, at some future time, to give more particulars as to my method of wintering. I always try to make all my preparations in the fall, and give them a "good letting alone" in winter.

My bees now are booming, but it is so cold and windy upon the Georgian bay, that I have experienced great difficulty in getting queens mated there. I have now from 100 to 200 colonies devoted to rearing queens, and will soon have more than 200. The Palestine queens will be in great demand, as soon as reports are given from many disinterested parties. I find that those from some parts of the Holy Land far outstrip others.

Now, Mr. Editor, I will send you one to keep in your apiary to test it, and show it to your visitors.

The Rev. L. L. Langstroth, Mr. Muth, and others, have them to test. If you and some of our other first-class bee-keepers test them, we shall arrive at the truth as to their merits. If handsome bees is one of the qualities required, they are ahead; and in prolificness they can, I think, beat the world. Mr. P. P. N. E. Pelissier, of Quebec, reports 7,580 eggs laid in 24½ hours. I will send you another letter from Mr. Benton next week.

Beeton, Ont.

* * *

For the American Bee Journal.

Transferring Bees from Box Hives.

OSCAR F. BLEDSOE.

Having had some experience in transferring, I will give my method, being led to give my thoughts on this subject by reading an article from Mr. G. W. Demaree, in the JOURNAL of the 29th of June, in which he seems to think he has reached the *ne plus ultra* in transferring. I transfer at any time when there is a flow of honey. I fill the lower story of the Mississippi bee hive (having dubbed the hive I use with that name) with 9 frames, either filled with empty comb or comb foundation, or having good starters. I put on a second story, and having taken 9 frames filled with honey and brood from 1 or 2 of my strongest colonies, fill this second story with same. I brush off the bees from these frames containing brood and honey, and leave their places in the hives from which they are taken vacant. I provide myself with a smoker, dull hatchet or cold chisel to cut nails, mallet, large feather (a single feather is better than a bunch), a vessel covered by a sheet, and a knife. I put the frame hive prepared as above in place of the box hive, without any ceremony, only blowing in enough smoke to keep the bees from flying at me. I lay the box hive on one side, the lower or open part turned toward the frame hive, and place boards so that the bees can crawl into the frame hive easily. I then commence to cut the box hive apart very rapidly, taking the combs as fast as the bees can be brushed from them, and putting them in the vessel at my side. As soon as all the combs are taken and the bees brushed off, occupying only a few minutes, the transferring is complete so far as the box hive bees are concerned. The advantages of this process are, 1st, its rapidity—no previous "knocking first to one side and then to the other," no "waiting a little while for them to fill themselves with honey;" 2d, its safety and certainty, inasmuch as to add to the confusion and dismay of the transferred bees, no patching up is inforced on them—no combs with dripping honey are given them to invite robbers, and if the equivalent of their brood and honey are put in their new home, instead of being checked, they are actually bettered in their condition. I will add that if I can catch the black queen and have an Italian queen or queen-cell to spare, I kill her and thus Italianize and transfer at the same time.

After driving the black bees into the frame hive, I take the vessel containing the combs to a close room, and having transferred the combs to frames, put the frames in the hives from which the frames of brood and honey were taken to give the black bees. Fixing up these combs and "handling" the dripping honey often gives a new impetus to these last named colonies, so that transferring by this method, if not an advantage "all around," is, at least, not a decided check. I use no tin-fixings, thorns or pegs, or clasps to hold the combs in the frames, but simply coarse cotton thread, or better, the common paper package-cord of the stores, that the bees can cut easily and remove from their hives.

Grenada, Miss., July 3, 1881.

* * *

Rural New Yorker.

How to Rear Good Queens.

W. Z. HUTCHINSON.

As queens are liable to die, or to become impotent, and as the increase of colonies require queens, it is necessary for the beginner to learn how to rear them. Preparations for queen rearing should be commenced as early as the weather is warm enough for the bees to fly every day. The best queen in the yard—that is, the one whose colony, all things considered, has given the best results—should be selected as the one from which to rear others. Some other colony, containing a choice queen, should be allowed to rear the drones. A frame of drone comb should be placed in the centre of the brood-nest, and the colony stimulated by feeding, in order to have drones flying from this choice queen as soon as possible. Inferior queens can usually be prevented from rearing drones, by allowing them no drone comb. As soon as some of the drone brood is sealed over, a frame of dry, clean, light-colored worker comb should be placed in the center of the colony containing the queen from which queens are to be reared. In 2 or 3 days the queen will fill this comb with eggs, and in 3 or 4 more days the eggs will hatch into minute larvæ, when both the queen and all the brood should be removed from some strong colony, and this frame of just-hatched larvæ should be placed about the center of the hive. The queen that is removed may be kept in a "nucleus" until she is needed in forming a colony, and the brood that is removed may be given to the other colonies. This queenless colony will immediately commence building queen-cells, and as there is no brood in the hive except that from the choice queen, all the queens will necessarily be her daughters. Cutting off edges of the comb, or cutting holes in the same, where there are eggs or just hatched larvæ, will almost always insure the building of queen-cells in such places. It will be noticed that the queens are started from eggs or from just-hatched larvæ, as the bees are given no other, and so are fed the "royal jelly" from the first.

In a week the queen-cells will be sealed over, when the apiarist should form his "nuclei." A "nucleus," in bee-keeping, is a colony on a small scale—for the purpose of rearing queens. A nucleus hive may be nothing more than an ordinary hive, with the space contracted by a division-board to the capacity of 2 or 3 frames. By using 2 division-boards and having an entrance at each side of the hive, one hive can be made to accommodate 2 nuclei.

After the hives for the nuclei are all prepared and placed upon their stands, then the bee-keeper should go to different hives of the apiary and take out 2 or 3 frames for each nucleus (at least one comb in each nucleus should contain brood), till there are as many nuclei prepared as there are queen-cells to dispose of. The bees should be left adhering to the frames of comb, only one must be certain that no queen is removed. To be sure of this, do not take the frames away until the queen is found. I sometimes shake off into the nucleus the bees from one or two more combs, so that, even after the old bees have returned, there will yet remain a sufficient number of young bees. The next day after the nuclei are formed, each one of them should be furnished with a queen-cell. In cutting out the cells a small piece of comb should be cut out with each cell, and great care should be taken, both in cutting them out and in fitting them into the comb in the nuclei, not to press or dent them in the least. In 2 or 3 days the queens will hatch, and in about 10 more days they will be laying.

After cutting out all the queen-cells from the old hive, another comb of larvæ can be given it and another lot of queen-cells obtained, or, if the apiarist has a sufficient number, he can leave one queen-cell, which will soon furnish this colony with a vigorous queen. After a laying queen has been removed from a nucleus, another queen-cell can be inserted, and in 10 or 12 days it will again have a laying queen.

Rogersville, Mich.

* * *

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
Oct, 6—Union Kentucky, at Shelbyville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
11, 12—Northern Michigan, at Maple Rapids.
O. R. Goodno, Sec., Carson City, Mich.
11, 12—Northeastern Wis., at Berlin, Wis.
12—Central Ky., in Exp. B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
25, 26 Northwestern District, at Chicago, Ill.
C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
1882.
Jan. 25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

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☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. GOODNO. *Sec.*

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., JULY 13, 1881.

☞ On Saturday, July 2, after the BEE JOURNAL of last week was on the press, the *bees* in our great *hive* of nature were thoroughly alarmed, because of an attack made upon the person of its chief. Had the *intruder* been within reach of the infuriated *bees*, they would quickly have *stung* him to death. The person attacked was Pres. Garfield; the assassin was a notorious fanatic by the name of Guiteau; the weapon used was a large revolver; the work was clumsily done, at the depot in Washington, as the President was about to take the train, —but the President still lives, to rejoice the hearts of fifty millions of freemen. The messages of condolence from all the civilized nations of the world, present a beautiful and affecting spectacle.

◆

Suspended. —The small monthly, "*Young Hearts and Little Hands in Apiculture*," that was published by J. W. K. and A. G. Shaw, two clever boys, at Loreauville, La., is *no more!* In its June number, just published, the editors give their valedictory. It has lived just two years. We expect to hear from the "Shaw" boys at something greater, if life be granted them to become men.

◆

☞ The Minnesota Agricultural and Mechanical Fair and Exposition will be held at Minneapolis, Minn., September 5 to 9, 1881. It promises to be a very attractive Fair. We desire to engage some good judge of bees and honey who may attend that Fair to make a brief report of such for the BEE JOURNAL, and will furnish 2 season tickets and the necessary documents as our reporter. Who will accept this proposition?

◆

☞ Hern Vogel succeeds the late Hern Andreas Schmid, as editor of the *Bienen-Zeitung*. The *Zeitung* is now in its 37th year of publication, and is the oldest bee paper in the world. We extend our congratulations, and welcome its new editor, Hern Vogel, whose acquaintance we were very glad to have made at the Austro-German Bee Congress, at Prague, in 1879.

◆

The Northwestern Convention at Chicago.—It will be observed, by reference to our local convention directory, that the time for the meeting of the Northwestern District Convention has been postponed till Oct. 25 and 26, 1881, instead of Oct. 11 and 12. It was found other Societies were entitled to the latter days for their Conventions, by priority, and hence the change. We think the change a good one, as it will enable members of local Societies to perfect arrangements for a general attendance, and give opportunity for a review of the summer's work.

Mr. Langstroth on Glucose.

It is with the greatest satisfaction we give space to the able and practical article from the pen of the Rev. L. L. Langstroth, to be found on page 218. His strictures on the uses and abuses of glucose are exhaustive and convincing, while the whole article will well repay careful and studied perusal. Particularly worthy of attention are the following sentences: "So enormous are the frauds practiced in the adulteration of our commercial sweets by grape sugar and glucose, that it seems to me that bee-keepers should lend no countenance in any way to those who make them.....On selfish motives alone, those who deal in honest honey, and those who have the control of our bee periodicals, should set their faces as a flint against articles made almost exclusively for bad purposes.....If ever grape sugar and glucose are made as pure as the best maple sugar and syrup, and it becomes desirable to mix them with our other sweets, let them be offered at reasonable prices under their own names, so that we can do our own mixing; or let the mixtures be sold as such for what they are worth."

It is gratifying to know that Mr. Langstroth's able arguments have not been altogether in vain, for the closing sentence of Mr. Root's rejoinder indicates that he is "almost persuaded," although his promise is made with an evident mental reservation. This sentence reads: "In the next edition of the "A B C," and also in our price list, I will, *at least for the present*, advise against the use of grape sugar."

It will be observed that Mr. Langstroth takes the same view of grape sugar and glucose as a commercial product, that we advocated long ago, and is as unalterably opposed to its being offered and sold for anything else. We have always assumed that any article of real merit has nothing to fear from being honestly trafficked, while a product possessing no real merit should not be imposed upon the public under an assumed name. No amount of *commercial enterprise* can ever justify *dishonest dealing.*

◆

Fraternal Appreciation.—There is, perhaps, nothing more indicative of a paper's real merit than the frequent appearance of articles accredited to it, and nothing more encouraging to an editor than the receipt of private encomiums like the following, from those who "know whereof they speak:"

The Rural New-Yorker,
34 Park Row, N. Y.

T. G. NEWMAN, ESQ.—*Dear Sir:* Allow a word of congratulation on the work you are doing for apiculture by means of your paper. Its able discussions of all topics relating to the apiary have won for it an enviable reputation among bee journals. Success to you! Fraternally,

JAS. W. DARROW.

Seldom have we felt more pleasure than we experienced upon the receipt of the above note from the office of the *Rural New-Yorker*, a paper which stands pre-eminent among the agricultural papers of the world. It is unnecessary to return the compliment, as the *Rural* is read and appreciated wherever scientific and intelligent agriculture prevails.

Explorations in the Orient for Bees.

The following very interesting letter from Mr. Frank Benton, will be read with much interest. The results of his expedition are not flattering. After the expenditure of a small forture, many months of valuable time and enduring hardships, that but few men could or would endure; the result is that Mr. Benton has a colony of small bees that are "not valuable," and a colony of *Apis dorsata* that are in such a condition as not to be "likely to reach its destination, Cyprus, alive." The result is anything but flattering, and the contemplation of it by Mr. Jones must be rather discouraging. Nevertheless let us hope that there may be some result that will, in a measure, give some solace for his many expenditures.

Mr. Benton's letter is as follows:

Steamer "Djemnah,"
Red Sea, May 3, 1881.

FRIEND JONES: No doubt you look for a long account telling you that I have with me scores of colonies of bees of various kinds and races, some of them far more valuable than those we now cultivate, and I should be very glad indeed to be able to give such a report, but instead, I must say I have with me but two races of bees and but two colonies of *Apis dorsata*, the Great East India Bee, and one of *Apis florea*, a race of very small bees, curious, but not valuable, and furthermore, I cannot say that the colony of large bees is in such condition as to be likely to reach its destination alive.

Now, notwithstanding this very meagre report, I am justified in saying that I have exerted myself to the utmost, and have risked my life and health times without number, feeling that I must do the work I had undertaken if it were a possible thing. The fact is, I have undergone hardships, and have exposed myself to the attack of disease as well as to the dangers of instantaneous death in a number of ways, to such an extent as I could by no means be induced to do again, even for a very considerable sum. As it is, my only penalty has been a severe tropical fever—the jungle fever of Ceylon—which afflicted me during 10 days, occasioning me much suffering; some personal expense for clothing necessary to the journey as well as others spoiled by climatic influences. It was an utter impossibility for me to reimburse the money the journey has cost. I shall likely return to Cyprus with £12 to £15, but if I had had a year's time in the East, and had found very valuable bees I do not believe I could have paid expenses.

I aroused much interest in Ceylon while I was there. Even with the utmost economy, traveling and getting along, oftentimes, in such a manner as the Europeans living in the East consider "mean," the expense of such a journey is immense, and then it takes so long to accomplish a little. This is partly owing to the character of the people living there, and partly to the climate, to which no European or American dare expose himself as he would at home.

I will endeavor to give a short account of my journeyings since leaving Java, having told you, I think, of my fruitless and trying search there. You will see from what follows why I have no more to show for the time, money and trouble I have been obliged to use in testing this matter.

Immediately upon my arrival in Ceylon from Java I proceeded to one of the jungle districts where I had been informed I would be likely to secure some of the large bees. I had a letter of introduction to one of the native chiefs—the head one of this district, and a man more interested in bees than any other native—perhaps I might say *person*, in Ceylon. This letter not only secured me his influence with the natives, but an invitation to remain in his home during all my stay in his locality. Within two miles of his home I saw the first colony, or, in fact, the first specimen of *Apis dorsata* which ever greeted my eyes.

The bees were about 50 feet up a tree, on a branch to which it was not easy to get. Yet I climbed up so as to reach out and take off in my hands some of these wonderful bees, as large as queens, blue backs with shining blue wings and orange-colored bands under them. The comb, which was new, hung from the under side of the branch about 15 inches long, and the bees hung down 6 or 8 inches lower, looking like great wasp-colored hornets, beautiful but dangerous looking. As long as wholly undisturbed, or merely taken off from the bottom of the cluster with the hand they made no effort to sting, but a breath or the least jar, or even the scent of the body blown by the wind towards them irritated them much. When one had stung me or my clothing, I have forgotten which, the rest fast became wild with excitement, constantly whizzing out from the cluster in great anger. They kept coming in great numbers until I thought it prudent to retire. So down the tree I went, but my new-found friends accompanied me, as I went out into the jungle, "sticking closer than a brother." I received many stings, yet found them not quite as severe as those of our bees, and the bees themselves were more awkward about stinging than are our bees. At last I got rid of them by killing and capturing them, but for some time others kept trying to sting even when I was rods from the tree. With the help of some natives I secured this comb and a part of the bees, but the rascally Cingalese, being afraid of the bees, let their torches blaze up, although they had been cautioned against it, and thus burned many of the bees. I could find no queen among the remainder, and of course soon played out. They took no care of their brood, so I was obliged to throw away the comb shortly after. Strange to say, these bees, so ferocious in their forest-home, where nothing but smoke will bring fear to them, can be handled with no fear and without smoke, when in movable frame hives, provided they be not jarred or breathed upon, and no quick motions be made. After this I could get no more trace of the large bees near at hand, with the exception of a single colony very high up a large tree. I had learned that at night was the best time to handle them, if I wished the bees, and so in the night I climbed this lofty tree which stood on the side of a large, steep, rocky, and jungle-covered hill; but except a severe stinging and much fatigue there was no result of this venture, for the bees were in too dangerous a situation. Many times when I had made long journeys to secure some, which had been found for me, I was disappointed by finding that some one had cut the combs for the honey, or that these were new swarms, only temporarily settled, and which had soon gone away.

An excursion of a few miles was a long journey, because it had to be made with an ox-cart, generally in the night to avoid the heat, and as much time would be lost in getting a cartman and getting him under way as it took to make the journey, or the way would be through almost impenetrable and rocky jungles where progress, on foot, even, was slow and laborious.

A trip to *Bamberagalla* (*Apis dorsata* rock), 22 miles with ox-cart and 7 miles on foot, showed me 14 colonies of the great bees, some of them containing a bushel of bees and having combs 4 or 5 feet long and 3 to 3¼ feet broad! But the lowest down was 50 feet from the rough rocky bed at the base of the mighty rock itself, and others were a hundred feet above us upon the under side of a shelving projection, quite inaccessible. Two or three could, at great risk, be gotten at; we crept into the cleft of the great rock, ascended a slanting pole 30 feet, then built a perpendicular ladder of poles and ratans 50 feet up the face of the rock, after which, hand-over-hand, we went up about 30 feet of very steep rock, perfectly bare and solid, our only hold being our bare feet and a single ratan attached to a boulder above. Once up here, we could go within 20 feet, along the ledge, to the place where most of the bees were located. I had put on my shoes, but the jar of the rocks made the bees angry, and I removed the shoes. I made the examination in the day-time, and at night we were to take the bees.

The men considered it so dangerous for me, that it was only by insisting upon it that I succeeded in accompanying them. I had little faith that they would get me the bees in good shape, as they asserted they would. In a fearful, blinding, thunder-storm these natives let one of their number down, by means of a rope, a very steep decline some 30 to 40 feet, where he slipped a sack over the comb and bees and cut the former between the honey and brood; then he cut the honey from the rock and came up with his sack of broken comb and bees. He had a torch, and I suppose made such use of it as to prevent ½ of the bees from getting into the sack alive. Of course I protested, and to satisfy me they motioned that I should go up next time.

I followed them, and, behold, we went by a passage that I had not found before, right through the center of the great rock which rested upon the immense mountain-like block up whose side we had climbed. It was a most tortuous and difficult passage, but at last we emerged at the top and found ourselves upon a rock about 10 or 15 feet square at the top. In a fissure, roofed by a small rock, and into which I could step, since it was, in fact, a smaller cave, was a colony of the great bees. With smoke I cleared the bees away a little and began fitting the combs into a box which we had hauled up with a rope. There were some 40 or 50 lbs. of very fine honey. I had a box which would hold about a bushel and a half, but after fitting 3 combs of brood and honey, and putting in about ⅔ of the bees, I was obliged to leave the rest to the natives. They feasted themselves upon honey and sealed brood, or, in fact, brood in any stage was a choice bit for them. The rocks were wet and slippery, so that it required great care in letting down the box of bees, as well as in moving about.

Thus, at midnight upon this great rock more than a hundred feet up in the air, with the moon and stars looking down upon us and the clouds below us, with 4 wild Cingalese hunters as my companions, their tawny skins invisible except where a single cloth, the size of a pocket handkerchief, was wound about them, and far from civilization, in a dense ebony forest, I got the bees I now have with me. It was not a very safe journey down the rock so slippery with the fallen rain, but it had to be made. I breathed freer when my feet were again on the ground below. We camped under the edge of the rock and in the morning started for the village, where we had left some things. The bees were carried by men some 13 miles, and then brought in a 2-wheeled ox-cart 16 miles, thence by coach 12 miles, and by rail 50 miles.

I made many excursions, but found only one other colony of *Apis dorsata*. While getting this from a tall tree on a steep declivity, I got soaking wet, and had 4 or 5 miles to walk in the night air. Then I do not think that the water was very good.

There were many sick with fever, and this was one of the very bad districts. Notwithstanding the greatest precautions, I was soon down with the fever—the jungle malarial fever of Kurunegalla. There was no medical aid, and I grew worse; at last, in desperation, I walked several miles through the jungle and went 9 or 10 in an ox-cart to where I could get some medicine, then I went by coach and sail to Colombo, where I was well cared for by the editor of the paper for which I had written some articles. During the last 10 days of my stay in Ceylon I suffered intensely—more than in all my life before. At last, being so weak I could hardly stand, I got on this steamer. I have been gaining strength since then, having had no fever, so now I feel quite like myself, though the heat is fearful.

You can well imagine that, sick upon my bed for nearly a week before leaving, I could do little or nothing to prepare the bees for shipment, and just when I had learned to know how to handle the new bees, I was prevented from getting more of them. I felt so well and had such great hope, at the end of the first 2 weeks in Ceylon, that I should at last solve the mystery regarding this wonderful bee that, though I had given up all hope of getting enough colonies to pay expenses, still I stayed over another steamer, determined to make the greatest effort to know about the value of these bees.

I cannot say, exactly, as to what we may expect of them, for I do not think I gave them even a fair trial during the few weeks I had these colonies. However, they did not fix up their combs readily, nor did they gather much; besides the rascals would not take the sugar syrup much faster than they wanted it to eat, but they amused themselves by fighting each other, and really stinging to death the weaker members of their own family. Their stings are not to be feared, nor are their tongues as long as I expected to find them. They do get honey, and can be kept in well ventilated hives, yet I must consider their introduction into Europe and America as a very doubtful experiment, not because they are not likely to stand pretty cold weather, for they are found in the open air in exposed situations on the tops of high mountains, but I hardly believe they will distinguish themselves as honey gatherers.

To get them, there should be at least two bee-masters together, and they should come prepared to spend some months at the work, if a thorough trial of the race and positive results were to be attained.

A letter, written a month ago by Mrs. Benton, was received by me at Aden, and informed me that you wished me to take bees to Cyprus. I shall be glad to get them there alive. Mrs. Benton further says, that on account of black plague, which is raging in Mesopotamia and parts of Syria, quarantine has been established in Syrian ports, and between Beyrout and Cyprus, so that, unless I come *via.* Alexandria, I may be delayed considerably. I hope to learn that by this time the ports have been opened. as, if I have to go from Suez by rail to Alexandria and then take the English steamer, I think the expense will be greater, and, if I should not just catch the English steamer in Alexandria there would be several days delay there. Several lines run from Port Said to Beyrout, and there I would get the English or Austrian Lloyd without much delay. Hoping for the best, I am, yours truly,

FRANK BENTON.

☞ The Caledonian Apiarian Society will hold its Annual Bee and Honey Show, at Sterling, Scotland, on July 26 to 29, 1881. We have received its Premium List, by the courtesy of its efficient Hon. Secretary, Mr. Robert J. Bennett, of Glasgow. It presents a large and varied list of cash prizes, medals and diplomas, and we hope it will be a very successful show.

☞ In our next issue we expect to give the table of winter losses, so far as they are heard from. We intended to have given it this week, but it is crowded out.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

California Honey Crop.—In reference to this, the San Francisco *Grocer* says:

This year, owing to a reported scarcity of bee food in some localities, a short crop is anticipated, estimated all the way from twenty to fifty per cent. But as similar fears were entertained a year ago, they may again prove to be unwarranted.

The Crops.—The views of some of the Western Boards of Agriculture concerning the crops for the present season are as follows;

In Ohio the yield is expected to be about 80 per cent. of that of last year, the early sown being the best. The acreage in Michigan is about the same as in 1880, and only 10 or 12 bushels per acre are looked for. Indiana expects a crop of only 30.000,000 bushels, as against 47,000,000 last year, the quality being excellent. Wisconsin has a large acreage in spring, but a half breadth of winter wheat, and the crop is in fine condition. The Iowa board estimates the spring-wheat crop at half that of last year, and the winter sown at 44 per cent.

The Linden or Basswood in Bloom.—Mrs. L. Harrison, in the *Prairie Farmer* remarks as follows:

While I am writing, a bouquet from the linden (*Tilia Americana*) is by my side. About ⅔ of the buds are open, and the fragrance is refreshing. This magnificent shade tree reigns supreme in the profusion and quality of its honey. During the opening of its pale yellow bloom, its branches are enlivened by the humming of bees and buzzing of flies that are reveling upon its sweetness, and the bees are so loth to leave this treasure house of nectar that they spend the night among its leaves, carrying home a load with the first morning light. The largest amount of honey gathered by one colony in one day on record was from this elegant tree. Therefore, during its bloom every facility should be afforded the little gleaners, that they may make the most of its harvest. Every impediment to their flight should be removed, such as heads of grass or tall weeds, and an easy egress and ingress provided. As fast as surplus boxes are filled and capped, they should be removed, and no colony compelled for want of room to unwilling idleness. Care should be taken to procure the honey in the neatest and most attractive way, so that it will please the eye and be in the best marketable shape. Honey must necessarily be a short crop, as so few bees survived the past winter, and reports from California are not flattering, owing to very late frosts killing the bloom. Bee-keepers should be vigilant and ready to take advantage of every flow of nectar, and so remedy, as far as possible, the unprecedented losses of the past winter.

Where our Forests are Going.—The Fishkill, N.Y., *Standard* remarks as follows on this subject, showing that our natural bee-pasturage is fast passing away, and that the successful bee-keeper must plant for his bees:

To make shoe pegs enough for American use consumes annually 100,000 cords of timber, and to make our lucifer matches, 300,000 cubic feet of the best pine are required every year. Lasts and boot trees take 500,000 cords of birch, beech and maple, and the handles of tools 500,000 more. The baking of our bricks consumes 2 000 000 cords of wood, or what would cover with forest about 50,000 acres of land. Telegraph poles already up represent 800,000 trees and their annual repair consumes about 300,000 more. The ties of our railroads consume yearly 30 years' growth of 75,000 acres, and to fence all our railroads would cost $45,000,000, with a yearly expenditure of $15,000,000 for repairs.

These are some of the ways in which American forests are going. There are others; our packing boxes, for instance, cost in 1874, $12,000,000, while the timber used each year in making wagons and agricultural implements is valued at more than $100,000,000.

Will Bees Pay in Oregon?—This question is answered by the Oregon *Farmer* in the following language:

If asked, "Will bees pay as well in Oregon as in the Eastern States"? my answer would be, Yes, provided the same care and attention is bestowed upon them here as in the East. By this I mean that they will pay as is the average in the Eastern States, leaving out the certain favored localities.

Our winters are milder, and if the hives are sheltered from the rains, every strong swarm that is well provided with honey and has a strong, healthy queen, will winter safely 99 times out of 100.

In the spring, in this locality—the Willamette valley—the earliest and most important bee forage is our willows, which line the river banks and small streams. From these trees the bees obtain pollen as early as the first week in February. Next in importance are the dandelion. About the first of April the maple opens out a perfect harvest of honey and pollen for the bees, and being supplemented by the peach, plum, pear and apple blossoms, enable the bees to build up strong and prepare for the most important crop of all, the white clover. This begins to open about the first of June and is in reality the main dependence for our surplus honey. The flavor of this honey is unsurpassed, and in favorable seasons the yield continues about 6 weeks, when the honey season, as far as surplus is concerned, may be said to be virtually over. In August and September the bees gather their supplies from golden rod and various wild blossoms to be found in our forests. In our list of honey-producing plants we must not overlook the locust and the blackberry, both of which are of considerable value in their seasons. In regard to the yield of surplus honey for the season of 1880, among my own bees it was from 2 up to over 80 pounds, the average being about 42 pounds. The same bees also increased by swarming to rather more than double.

Perhaps the best result from any one colony was 50 pounds surplus and four swarms, all of which were large. The worst enemy to bees in Oregon is foul brood, now chiefly confined to those who keep bees in box-hives. Moths are not numerous, and with strong colonies need not be feared.

Adulteration of Food.—By the San Francisco (Cal.) *Examiner* we learn that the Chamber of Commerce, of that city, has drafted a bill against the adulteration of food, to be presented to Congress, next winter, and proposes to exert its utmost power to have it pass. Mr Steele, at that meeting, made the following very pertinent remarks:

He said there was a great and urgent necessity for taking some steps to check the horrible and dishonest adulteration of food and drugs now being extensively carried on in America. He thought that the proposed bill was hardly binding enough, and had grave doubts as to whether it would pass, as a great body of adulterators would go to all lengths in lobbying against it. He referred to the honey shipments and said that the pure honey made on this coast could hardly find a buyer in Europe, on account of the glucose adulterations of New York. In this State, he said, that as yet there was no adulteration of sugar, though it was extensively practiced in the East. He thought a good plan would be to make every advertisement and label a contract, any breach of which could be recovered on. He then moved that Congress should be asked by the Chamber of Commerce to pass the proposed bill at once, and that the representatives of California in Congress be urged by the board to use their best efforts to secure its passage, which was carried.

SELECTIONS FROM OUR LETTER BOX

Dysentery and Lack of Ventilation.—I am very much pleased with the Weekly BEE JOURNAL. I put 17 colonies into my cellar last fall and lost 11; they lived till April; the dysentery was the cause of the trouble. They are doing well now. The dysentery was, I think, caused by their having no ventilation.

SILAS NOBLE.
Stillman Valley, Ill., July 1, 1881.

Encouraging.—The weather has changed at last! Again the sun shines out warm and clear, and the fiat has come forth: "Let there be honey, and there is honey"—"honey as is honey," too. Yes, the "boom" has struck at last, and the bees are working as they have not worked before this season, or last, either. The long continued wet weather has kept the white clover blooming continuously for the last 5 weeks, and it promises to continue for the next two, so that there is some hope of a good harvest. HARRY G. BURNET.
Blairstown, Iowa, July 2, 1881.

Honey Crop.—The honey crop is almost a complete failure in Los Angeles and San Diego counties, Cal.; Ventura county also has a very small crop. H. S. KIMBELL.
Cucamonga, Cal., June 25, 1881.

Bees Doing Well.—Our bees are doing well this spring. We only lost 16 out of 85, and wintered on the summer stands. About ⅔ of the bees in this section died during the winter.

FOSTER & HODGE.
York, Ill., July 3, 1881.

Honey Crop in Texas.—The first part of the season here was excessively wet and the latter part excessively dry—between the two we had about 10 days of fine honey flow. I shall not get more than ½ a crop of honey this year unless it rains in 2 or 3 days, for which there is not the least prospect. W. H. ANDREWS.
McKinney, Texas, June 29, 1881.

Honey Plentiful.—Bees are doing well in this part of the country, with a fine prospect for a large yield of surplus honey. Accept our best wishes for the welfare of the BEE JOURNAL.

SCOVELL & ANDERSON.
Columbus, Kan., June 27, 1881.

[Messrs. Scovell & Anderson are the publishers of the *Kansas Bee-Keeper*, and with pleasure we give place to their very friendly item. The Weekly BEE JOURNAL presents its ☞, and wishes its Kansas cotemporary success.—ED.]

Well Enough.—I had 8 colonies left out of 22, this spring. I have 22 again; principally increased by natural swarming. Black-bee and box-hive men have almost become extinct in this section, although I transferred one colony this spring that had come through the winter similarly to that mentioned in the JOURNAL; it stood out-of-doors all the winter, without protection; it was strong and was preparing to swarm on the last of April. JOHN M. PEARSON.
Tippecanoe City, O., July 1, 1881.

Unusual Amount of Clover.—The frequent rains of late have caused an unusual growth of white clover with an abundant show of flowers, and bees are having a good time of it. Mine began swarming on May 20, and are still keeping it up, but they cannot equal my neighbor's; Thos. Camerer had 2 colonies in the spring, one has cast 6 and the other 3 swarms, giving him 11 colonies now. L. JAMES.
Atlanta, Ill.. July 2, 1881.

That Fertilizing Cage.—I have several persons testing my fertilizing cage and await the result before describing it for the BEE JOURNAL. I am making experiments this summer endeavoring to lengthen the tongues of the worker bees by careful and judicious crossing. M. B.
Fincastle, Ind., July 1, 1881.

Chips from Sweet Home.—While I was at church (I seldom go), a swarm entered one of my hives. Up to June 20 I did not see one live honey bee on any bloom on my place, although I watched closely. Three of us have had a swarm enter our depopulated hives. D. D. PALMER.
New Boston, Ill., June 28, 1881.

Alphabetical.—I see that next year the BEE JOURNAL is to be enlarged. I must say I like it better and better every week; I cannot do without it, and wish it and its editor prosperity.

A.—AMERICAN BEE JOURNAL.
B.—Best bee paper printed.
C.—Cannot be excelled.
D.—Don't do without it.
E.—Excellent type, easy to read.
F.—Fresh every week.
G.—Good for all bee-keepers.
H.—Handy to refer to.
I.—It is invaluable.
J.—Just what all need.
K.—King of all bee papers.
L.—Latest news every week.
M.—Most information for the price.
N.—Ne plus ultra.
O.—Of all, it is the best.
P.—Purchase it at once.
Q.—Quickly, as possible.
R.—Reasonable price—$2 a year.
S.—Sample copy sent free.
T.—Try one, and you will like it.
U.—Unfailing instructor.
V.—Very best in existence.
W.—Will inform you on every topic.
X.—'Xcellent adviser.
Y.—You need it every week.
Z.—Zealous friend of bee-keepers.

S. C. FREDERICK.
Arcadia, Kas., June 25, 1881.

Large Yield of Honey.—I send sample of honey from wild China, a tree that grows in our Texas bottoms. How does it compare with white clover honey? The linden commenced blooming May 15; when it is nearly out of bloom, then the wild China comes in, which gives us about 4 weeks of good honey flow. Then horsemint comes in, giving very good honey. My bees have done very well, so far. In the last 20 days I have taken 4,800 lbs. extracted, and 600 one pound sections; the largest yield from one hive (3 story simplicity), being 240 lbs. I took from it 120 lbs., gathered in 7 days, and all sealed over nicely. In July the milk weed blooms, which gives us a good flow of sharp honey. In October and November we have an abundance of golden rod. I wish the AMERICAN BEE JOURNAL much success. J. W. ECKMAN.
Richmond, Texas, June 20, 1881.

[It is very much like white clover honey in appearance and flavor, but somewhat thinner. It should bring about the same price.—ED.]

Basswood Promising.—The clover honey yield is small. The basswood is opening and is promising for a good honey yield. JAMES HEDDON.
Dowagiac, Mich., July 1, 1881.

The Honey Yield in Canada.—I am so well pleased with the Weekly BEE JOURNAL, that I would not be without it if I only had 1 colony of bees. Bees are doing extra well in this section just now, and are gathering lots of honey. Bees wintered well around here last winter, considering how they fared in other places. The loss, so far as I can find out, would be about 10 per cent; but bees are mostly kept in box hives in this country, with the exception of a very few, and it is hard to induce people to use the frames. My repert for 1881 is as follows: I put 84 colonies into winter quarters, and lost 9 colonies in winter, and 11 more by dwindling after putting them out. I had 64 to begin the season with, and they are all doing well. My bees are in the simplicity hives, with the standard Langstroth frame. I expect we will have a large yield of honey here this season. Our main source for honey is from white clover and basswood, which is here in any quantity.

JOHN W. CALDER.
Williamstown, Ont., June 29, 1881.

Poor Yield of Honey.—White clover everywhere, but the continued north winds and frequent rains make me and the bees quite discouraged. I read, with interest, all the reasons given for last winter's disasters, but to me it is no "marvel of surprise," that bees from sunny Italy cannot live in our climate, in hives 1 inch thick, even with all our chaff. We pay a price for all our higher civilization and cultivation, and we have our choice between the old log gum or the bees' natural home, the mixed honey and safe wintering, or nice prize boxes of honey and winter losses.

MARY E. ROGERS.
Flint, Mich., June 27, 1881.

The Honey Crop.—I am not going to try to pull through the worst honey season we have had for 20 years without the BEE JOURNAL. The locust bloom was good for 4 days; then it ceased. The white clover is a failure; not more than one blossom in a thousand to what there generally is, and the heavy rains have washed all the honey out of what blossoms there are. The white clover season is over, with us, and the basswood is in full bloom. I think fully half of the bees in movable frame hives in this county died, while those in box hives came through with scarcely a loss; not more than 2 per cent. at most. Bees have thrown out more swarms this season than for 3 years past. I use the Langstroth hive, and lost 4 out of 11 last winter. My best colony, last year at this time, produced 85 lbs., and now the best I have out of 14 has given but 20 lbs. of surplus. I think the JOURNAL is the bee-keepers' best friend.

THOS. J. NICHOLS.
New Richmond, O., June 24, 1881.

New Crop of Honey.—By the end of this week I shall have 50 barrels of extracted honey. The barrels hold 47 gallons each, and the honey is of good quality. I have 300 colonies in good condition. L. LINDSLY.
Waterloo, La., July 4, 1881.

Top vs. Side Storing.—About all our bees are now working in sections, placed at the sides, while very few are at work on top. If it is objected to let the results of experience pass as argument, would it not be more reasonable to throw aside theory, no matter how plausible it may appear, when facts and actual experience prove the contrary? We have had an abundance of white clover for the last 3 or 4 weeks, but the weather has been very unfavorable to receive any benefit therefrom. Throughout the month of June it has been cool, with north winds prevailing most of the time; the nights especially have been too cold to admit of bees working in sections. The thermometer has stood near the freezing point many nights, and several light frosts have been noticed in some localities. Of course we cannot expect progress in our surplus receptacles unless we have warm nights. The prospect, however, looks a little more encouraging just now, and if the present change should continue for a few weeks, we may yet have a good flow of honey from basswood. Since writing the foregoing, we have taken a lot of finished sections from our side-storing frames. We have hardly any sections on top, that are even partly capped, so far, and we are more and more convinced that side-storing is an advantage.

GREINER BROS.
Naples, N. Y., July 2, 1881.

Brushing Bees from the Combs.—A novice in handling bees wishes the BEE JOURNAL to tell her the best way to get frames of brood or honey clear of bees. We are told to shake them off, but there must be a particular way to shake them that I do know of, for that plan to answer, and if they are brushed off with a wing or feathers they get furious, and small blame to them for resenting such rough treatment. So, kind JOURNAL, in the interests of humanity, pray tell us how to proceed. H. F. B.

[There is no better method, that we are aware of, than to use a little smoke judiciously, then with the soft edge of a turkey-wing feather lightly brush the bees off. During hot weather, considerable skill is required to shake off the bees, as the combs are very tender, and break out easily.—ED.]

Calling Things by Wrong Names.—MR. EDITOR: On page 204 of the BEE JOURNAL, you say: "Calling things by wrong names leads to endless trouble and vexation," and yet, you say on page 206, "Yes; there are fertile workers." Why this *adulteration?* Why not say "laying workers?" If they were fertile, would not their eggs produce other workers, like those of a fertile queen? CRITIC.

[We think had "Critic" consulted Webster's Unabridged, he would not have been so hasty. Fertile or laying workers produce eggs, but do not reproduce workers; all queen bees are supposed to be fertile, even though not mated with a drone, but they do not reproduce queens or workers unless properly mated with a drone. If the orthographical definition and universal custom can sanction the use of a special phrase, then "fertile" worker is a proper expression, and Critic will have to exercise his "fertile" brain on some other technicality.—ED.]

A Month Behind.—My bees came through to the 1st of April well, but dwindled then and had to be fed much. They are one month behind in quantity of bees and honey, compared with 1880. J. A. BURROW, M. D.
Santa Fe, Tenn.

It has Almost Rained Honey.—After losing all my bees (150 colonies) I bought 6 colonies of black bees. I now have 28 colonies in fair condition, with 24 laying queens. I expect to have 50 colonies in the fall, and I think I shall succeed. I have plenty of honey and combs on hand from the hives where my bees died. It has almost rained honey in this locality this year. A. C. BALCH.
Kalamazoo, Mich., July 7, 1881.

Loss 25 per cent.—I lost 25 per cent. of bees last winter from starvation. I use the 10-frame Langstroth hive; wintered in a cellar under a barn, built on a side hill, the lower side facing the east; thermometer 30° to 35°; absorbents on top of frames, 3 inches of buckwheat chaff; caps on, front entrance open; dysentery showed itself in spring, but not to any amount. C. McDERMOTT.
Malone, N. Y., June 6, 1881.

Doubled.—I have already doubled my number of colonies (I lost none last winter). They are storing honey very fast from white clover.

JOHN HERON.
Lockridge, Iowa, June 14, 1881.

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. MILLER, M. D., *Pres.*
C. C. COFFINBERRY, *Sec.*

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Sunny Side, Napa, California, June 10, 1881.

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27w4

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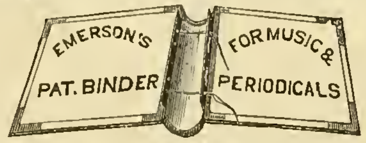

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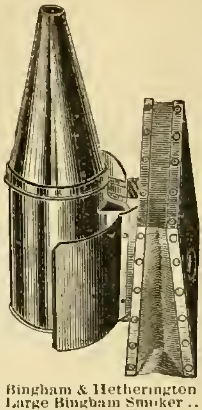

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CORRESPONDENCE.

For the American Bee Journal.

How to Produce the "Coming Bee."

C. J. ROBINSON.

Among progressive bee-keepers there seems to be various speculative ideas concerning the "coming bee," or the manufacture of a breed of bees superior to those obtainable at the present time. Now that the production of honey is looming up as one of the most lucrative branches of industry adapted to many regions of the world, it behooves the producers of that commodity to look about for the best servants to gather in and store the crops of nectar. The soaring bee-keepers are not satisfied with the "scrubs" (bees) of either Continent, or Islands yet explored, and none others exist unless it be the Americanized Italian bee.

The American bee-breeder now has at hand types of all the different species or distinct races of bees from all climes, and in the near future the history of the American merino sheep is to be repeated in the improved Americanized honey bee. The fine-wooled sheep of Spain had been famous for centuries. The "Transhumantes," or traveling flocks, were known as merino sheep. Prior to the introduction of merinos into this country (their exportation was prohibited up to 1802) there were several distinct families, such as Spanish merinos, French merinos, Saxon merinos, and Silesian merinos. In 1802 Chancellor Livingston, American Minister at France, sent to his farm in New York 2 pairs of merinos from the French national flock at Chalons. Col. David Humphreys, of Conn., American Minister at Spain, in 1802 brought home with him a flock of Spanish sheep. In 1810 Mr. Jarvis, Consul at Lisbon, shipped 3,850 to the United States, to be distributed: 1,500 in New York; 1,000 in Boston and Newburyport; the remainder to Philadelphia, Baltimore, Alexandria, Norfolk and Richmond. reserving 350 for himself. Just at that time those Spanish sheep were obtainable in consequence of the French invasion of Spain, and the confiscation of the flocks of the grandees, who had bred these sheep conformable to the natural laws for improvement, as they fancied, during a long period. Each grandee, such as the Prince of Peace, kept a flock of a strain differing somewhat from either of the others. For instance, the said Prince owned the Taulars; the Conde Campo de Alange, proprietor of the Negrettis; then there were the Escurials, Infantados, and Montarcos, besides the Aqueirres. From these several families sprung the improved American merino. And what of the improvement? The best sheep of Spain or the highest bred sheep of Europe only yielded 10 pounds of wool per fleece, as the highest—about one pound of wool to 12 pounds of carcass, while "Gold Drop," the famous $10,000 buck, a good type of the American merino, gave a yield of 40 lbs. of wool annually—4 lbs. of wool to 11 of carcass. This great improvement is a triumph of the American breeder, through a continued "survival of the fittest," by the "relentless hand," through the agency of man. The census return shows a progressive improvement in weight per fleece during each decade for more than half a century.

The history of the improved American merino is parallel with the history of the Americanized breeds of the representatives of domestic husbandry. That which has been done by skillful breeders of domestic animals in this country in the line of improvement may be wrought by the American apiarists. England is no longer the nursery of improved stock, nor has Italy, the Oriental Isles, jungles of Ceylon, Holy Land, or other country ever been the nursery of scientific bee-culture. The whole field for improvement in bee-breeding is yet unoccupied, except, perhaps, a few Americans who have attempted to enter the broad domain of improved breeding.

Upon few subjects connected with domestic economy, probably upon no single one, is there greater need of diffusion of knowledge than in regard to the principles of breeding. Even with professed scientists, who write upon the subject occasionally, the alpha and omega of their philosophy is embraced in the axiom that a "survival of the fittest" by "the relentless hand" of chance is the road to improvement of race or breed. Now, if this axiom be a good one, and our farm animals were now in the condition which nature produced them. and if this condition best subserved the wants of the agriculturist, it would approximate nearer to a sufficient guide in breeding, but with domestication came the disturbing influences, and the effects of these have been deviations numerous and great, changes external and internal in form and in construction.

By virtue of some of these changes great improvement has been attained. Our most valuable animals are, in some sense, a manufactured article—a creation through the agency of man. The object of the bee-keeper, like that of men engaged in other avocations, is profit, and, like other men, the bee-keeper may expect success in proportion to the skill, care, judgment and perseverance with which his operations are conducted. The improvement of domestic animals and insects so as greatly to enhance their individual and aggregate value to render the rearing of them more profitable to all concerned, is one of the achievements of advanced civilization and enlightenment, and is as much a science of triumph and skill as the construction of a railroad, a steamship, an electric telegraph, or any work of arhitecture. The truth is, and it is of no use to deny or disguise the fact, the improvement of domestic animals (including insects) is one of the most important, and, until of late and even now, one of the most neglected branches of domestic economy. Let the ill-favored, chance-breed mongrel, so common, testify. To assert that Dame Chance is the scienced breeder is advocating doctrines countering the teachings of science—scientific bee-culture, and belittles the intelligence and attributes of mankind. If it is true that the *Apis mellifica* of any clime has been perfected by a beautiful "letting alone" and "the severe pruning of the relentless hand of nature," why is it that there should be any difference between the bees of Italy, Cyprus, Syria, and America? Each have been left to the "pruning which nature practices with relentless hand" during centuries. No attempt has been made to interfere with said hand other than to hide domiciled bees in a box of straw or chaff, which beats entirely the hand of nature in relentless pruning. And if it is the fittest that survive such relentless pruning, those that survived the stern ordeal of last winter's pruning must be doubly fittest for perpetuating the race, and the fancied reasons for importing bees that have been "bred under the most trying circumstances," in order to keep "our apiaries from deteriorating," is absurd.

In the case of creating the improved American merino, the breeders did resort to importing the survivers of nature's scrubs, with which to couple in the breeding to give intensity of vigor or preponderance of any desired superiority. And if, as in the improved sheep, bees can be bred that will produce 4 times the amount of honey gathered by the fittest native and European races, it is worth while to give attention to the subject. The improvement of bees by breeding in accordance with the laws of nature, applied scientifically by the hand of skillful physiologists, is as promising, and presents as wide a field of operations, as was that of the sheep.

We cannot say what might have been the original type of the several races of bees, for the inquiry would carry us beyond any record of history or tradition regarding it, but, few doubt that all the varieties sprang each originally from a single type, and that the many variations are due to causes connected with their domestication, and influence of climate and other circumstances.

Now that the renowned tourist, Mr. Benton, has obtained the famous elephantine honey bee (I ignore or drop the Latin), which is said to be a distinct species, why not breed mule and hinny hybrid honey bees? Comrades Jones and Benton have acquired a valid title to fame as enterprising philanthropists. Thanks to their contributions to scientific bee-culture, which opens a wide field for the improvement of races and originating new breeds.

The space allotted me will not allow of my writing of the principles involved in the philosophy of breeding, but in a future article I may attempt to do so briefly.

Richford, N. Y.

For the American Bee Journal.

Getting Rid of Fertile Workers.

J. M. VALENTINE.

Yesterday, from 8 a. m. to 4 p. m., I took off, all alone, 110 section boxes, trimmed them up and put them away, then took out and extracted 26 gallons of honey, and cleaned up and put the things in the honey house in order, the thermometer ranging from 87° to 97° in the shade. I do not know whether it was a big day's work, as I have not heard others say what they can do; at any rate, I know I was tired enough. Bees are doing well. We have had a good run on white clover, and the bees are now gathering from both clover and basswood. I have taken from 40 to 60 1¼-lb. sections from a number of hives. I did not double up as I should have done in the spring. There are colonies that just now are in good working condition, which, had they been doubled together would have given me 60 lbs. of honey, after which they could have been divided and be as good as they are now. It will not pay to keep a weak colony. I found a colony a few days ago that had a fertile worker. They cast a swarm June 1st, and a few days after a second swarm. As I did not want to use the young queens that were with them, I pinched them all (6 in number) and the bees returned to the old hive. A few days ago I examined them and found they had a fertile worker. I took two empty hives, set one on either side of the old one, and lifted out a frame and put in one, and the next frame in the other, alternating them till all were transferred. After shaking out all the bees I moved the old hive away, and gave each colony a ripe cell. Now each have a fine young queen. Let some one who has a fertile worker try the same process, and report.

I like the Weekly BEE JOURNAL first rate. There is just enough in each paper for one dose—I can digest it all nicely.

Carlinville, Ill., July 2, 1881.

For the American Bee Journal.

An Excellent Canadian Apiary.

WM. F. CLARKE.

There are many excellent bee-keepers, quite unknown to fame, who are pursuing the even tenor of their way, and quietly enjoying their favorite pursuit, without much opportunity of association with those of kindred tastes. I unearthed one of this class on Dominion Day, July 1. A cheap excursion trip tempted me to go to Kincardine, the Lake Huron terminus of our railroad, 57 miles from here. I wanted to see the place and the lake, but was chiefly anxious to ferret out a man who had the repute of being "daft" on bees. Whenever you hear this kind of argument about a man, you may suspect that you are on the track of a scientific apiarist. The multitude regard it as a sign of lunacy for a man to be a close and earnest student of bee-life. Common-sense people, you know, keep bees on the free-and-easy, "go-as-you-please" plan; soon discover that bee-keeping is a humbug; quit it in disgust, and rail against it on every available opportunity.

Mr. George Sturgeon makes tin-smithing his business and bee-keeping his pleasure. I was agreeably surprised to find in his out-of-the-way little town, one of the neatest, best appointed apiaries I have ever visited. It was a holiday, and the proprietor was finding his fun among his bees, which were having a jolly time of it, swarming. Mr. S. is one of those bee-keepers who, after full trial of artificial swarming, prefers the natural way of it. He thinks he gets better queens, more vigorous colonies, and more satisfactory results generally, on Dame Nature's plan. The state of his apiary goes far to justify his practice. A more uniform, nicely marked, even-tempered lot of Italian bees I never saw than these. Mr. S. procured a dozen queens from Tennessee, I forget how long since, and also imported a few direct from Italy. He has practiced judicious selection, and the "survival of the fittest" with such results that if any bee-keeper can go through his apiary, and not break the Tenth Commandment—he is a better Christian than I am. I coaxed my newly-found friend to sell me one of his colonies, and it is now humming away in my garden very musically.

Like my apicultural brethren in general, I am studying up the question of wintering. Now here comes Mr. Sturgeon's experience to complicate things. He wintered ½ his bees in A. I. Root's chaff-packed hive, and the rest in a brick bee-house. All his out-door colonies did well; one, however, proved queenless. Out of 20 wintered in the brick bee-house, he lost 15, and the remaining 5 were rather weak. Of course Mr. S. is enthusiastically in favor of chaff-packed hives. We all praise the bridge that carries us over safely. I should like to know from parties who have tried chaff-packed hives with such diverse results, how these hives were treated in other respects? Had they any shelter, or did they stand out in the open air? Mr. S.'s hives were in a well protected place, close under the lee of a tight board fence, and I am inclined to think that even a chaff-packed hive is none the worse for such a friendly shelter.

We opened some 20 hives to inspect the queens. In several cases we had no need for a puff of smoke, so quiet were the bees. There are no other bees near there, and I think when there is no intrusion of strangers and the consequent quarrelling, pacific habits are formed, a sort of family feeling gets established, and gentleness becomes a characteristic. Why should we not breed for a peaceable and quiet spirit among our bees, if it can be had without the sacrifice of other important qualities?

Mr. Sturgeon is a disciple of A. I. Root's, uses the simplicity hive, and runs his apiary by the "A B C" book. He has made up his mind that he must either quit the tin-smithing or quit bee-keeping. His heart is evidently with his bees, but the care of them encroaches too much on business. He is happier in his apiary than he is in his tin-shop, and my private opinion is that the bees will gain his undivided attention, and that he will make it pay.

Listowel, Ont., July 7, 1881.

For the American Bee Journal.

Common-Sense Apiary.

DR. W. G. PHELPS.

It has been well said that the best evidence of a successful life is for one to succeed. Success, in any channel of life, is only another word for patience and persistency. Success in bee-keeping comprehends the exercise of both these valuable traits of character, and still more, it means the exercise of economy. Observe well these 3 and success will, ordinarily, crown any intelligent apiarist's efforts, close and sharp as may be the competitors in bee-keeping. To receive the greatest aid in practicing these, the average bee-keeper "hankers" after facts, when he searches his bee literature and preserves his JOURNAL. The "old heads" in apiculture may talk learnedly, and the untrained fire off their enthusiasm, but plain hard facts are what we want. While others are hammering away on the wintering problem, or the bee dysentery puzzle (neither of which have ever troubled me, save once, when seduced into using that first-class bee poison, grape sugar), I will try and give your readers directions for getting up a cheap and serviceable foundation machine. In using the columns of your widely-circulated JOURNAL I shall doubtless aid many who are groping in the dark, and save myself the trouble of answering personally the many inquiries that have been directed to me.

Mine is, in some respects, "the old, old story" of utilizing plaster casts to produce foundation. This subject I introduced to the public through the columns of *Gleanings* in 1877, and have ventilated the matter at intervals subsequently. The development of this matter has been a real case of patient, persistent study, forced upon me by economic motives, and I can truly say I have "got it" at last. *Gleanings* for August, 1880, contains an article of mine, giving a general review of what had been done up to that time. The credit due me is of little moment in comparison to the importance of getting a press that will answer every purpose and yet be inexpensive.

My press is made as follows: Two cast or wrought iron pans, ½ inch deep, are hinged together; to the uppermost one a handle 2 feet or more in length is attached; flaps with screw holes are made on the lower pan. Within these pans are accurately arranged and secured the plaster casts, previously run.

Guides of iron are put on each side to conduct the two halves into juxtaposition when brought together. Screw down the lower half to a strong bench, place a sheet of wax, previously softened in warm water, between, and exert a moderate pressure, and your foundation is made in quicker time than it takes to tell it. The sheets of wax I place close by the press in a pan of water, kept at uniform temperature. Of course a dipping apparatus is necessary to previously prepare the plain sheets, as with any other mill or press.

It seems hardly necessary to give directions for making the plaster casts, so often described before, yet I will do so briefly. I place the sheet of foundation, from which I get the casts, on a piece of glass, and rub into each cell, with an old tooth brush, a strong solution of soap. Around, and closely fitting the piece of foundation, I place an iron ring, well oiled. With plaster, mixed thin at first, I pour the same, rubbing it well down into each cell with another old tooth or paint brush. When full, place over and press down well to the iron another piece of glass, slightly larger than the rim, to give a smooth back to your casts. These casts, when taken from the rims, should just fit the pan in press, and when properly hardened with baryta water and soluble glass, will stand a great deal of use.

I will add, for the benefit of economical bee-keepers, that this press need not cost over $6. In my own I use a set screw on the hinge, to regulate the thickness of the foundation I wish to make. Hoping these points may be of benefit to some of your readers, I will close with a "long live the BEE JOURNAL."

Galena, Md., July 8, 1881.

For the American Bee Journal.

The Hive that I Like Best.

L. A. PENNOYER.

Bees are doing well now, but swarm too much. The first day of June I took off 7 two-lb. boxes from one hive, the earliest I ever obtained. I put 10 colonies in the cellar November 15th, and April 15th took out 9 in fair condition. I left 13 on the summer stands in double-walled hives, packed with chaff 4 inches thick, front and rear, and 5 inches at each end. I use the Doolittle hive, except that I build them 18 inches high instead of 12 inches; this gives me 6 inches of chaff above the brood frames, and 6 inches air-space in the cap, with air-holes bored in the side of the cap to give a free circulation above the chaff. I banked sawdust on the ends and rear of the hives as high as the brood chamber, and stood the shade-board in front. Result: every hive except one had combs as bright as in summer; the exception had a little mold in one end. When I opened them, on the 5th day of March, I found from 3 to 5 combs of brood. I have the Gallup frame; there was capped brood within one inch of the bottom of the frame, and eggs within half an inch of the bottom-bar. The colony which had 5 combs of brood is the one from which I obtained the honey June 1st. Early breeding has worked well with me. Those I had in the cellar dwindled badly; I think I should have lost some had I not kept them up with brood from those wintered out-of-doors. A great deal of the loss here was after April 1.

Winona, Minn., June 14, 1881.

For the American Bee Journal.

The Army-Worm and Basswood.

B. T. DAVENPORT.

About a week ago my bees were "weighed in the balance and found wanting." I have but 31 colonies out of the 87 put in the cellar Nov. 20. They were put out and had a good flight on March 18, at which time they were suffering with dysentery, but only 5 had succumbed to "that sleep which knows no waking," and 2 of these had starved. They were put back in the cellar on the morning of the 19th, and remained there until April 15, when I found 15 dead, and more than that many weak. I use the 8-frame Langstroth hive, and for winter put cushions of burlap over the frames, after removing all honey-boards. I think my bees were disturbed too much during the fore part of winter; they should not see a gleam of light, if possible. Our cellar is damp, but well ventilated, and the temperature ranged from 36° to 44°. I believe that ⅔, if not ¾ of the bees in Waushara county are dead, and, as far as I have learned, they are "deader" still in the county east of this, but what are left have just been booming since fruit bloom. I never saw bees get so much honey from dandelions; I had to extract some to give the queens room. Clover is beginning to bloom and promises well. The latter was also true of basswood until the army-worm put in an appearance, and now, in my immediate vicinity at least, nothing but the naked limbs remain, both leaves and blossom-buds being stripped. A Weekly BEE JOURNAL is just what we need and must have. Long may it "be."

Auroraville, Wis., June 2, 1881.

For the American Bee Journal.

A Practical Bee-House.

C. F. GREENING.

In answer to the request for a description of a bee-house that successfully wintered bees last winter, I will describe mine for the benefit of D. S. Kalley, and others. I have studied the requirements of the bees, then tried to meet them. I excavated a pit 12x16x3 feet deep, at the west end of my apiary, and not over 150 feet from the farthest hive. Pit-wall, of brick, to level with ground, wainscotted inside, with 2-inch air-space. Frame 6 feet high on top of wall, of 2x6 studding, using shiplap lumber for insides and ceiling, with 8-inch drop-siding for outside. I filled in the walls solid with dry sawdust. For rafters I took 2x12x12 feet, beveled down to 4 inches at ends, leaving full in the center, filled over ceiling with 4 inches of dry sawdust, making solid from 6 to 4 inches of sawdust from sill to sill, and over-head. Roof-boards lengthwise, 16 feet, then finished with match flooring, coal-tarred together, and ⅜-inch battens to break joints, on top of all, with a good coat of boiling coal-tar over all, making top of house same as freight car roof. I put one 7-inch ventilator through roof and ceiling, 4 feet from each end, letting one extend to within a foot of the bottom of the pit, the other just through the ceiling. The cold air strikes the bottom of the pit and circulates all over the room, while the hot, damp, impure air escapes through the short one. One window in south side of bee-house, with storm sash outside, and another inside, lined around edges with heavy wool cloth. My window is then always clear of frost. One door in east end opens outside, and another door inside, both battened with cloth, with hooks to draw tight. My floor is "mother earth," with 2 inches dry sawdust. My bee-house is always fresh and dry, with no draft, but plenty of air.

If very cold, say 20° to 30° below zero, I close both ventilators with cloth, until the temperature rises in the bee-house, then open short ventilator, and the other as required. The coldest weather last winter, mercury 32° below zero, with a howling blizzard in progress, my pets were closed up, air-tight, comparatively, but no sound was heard inside except their low, quiet, cheerful hum, as natural as a summer night. I keep the window heavily curtained so that it is absolute darkness within. I use a tiny beeswax candle when visiting them, and watch the thermometer closely, and keep it as near the freezing point as possible. A few nights it went some degrees below, but by closing the ventilators a few hours it went up to 35° again.

I place my hives, one row, the strongest, around the outside next to the wall, but not touching it, and 3 rows of shelves around, and stack them up, making 4 tiers, but none touching one another or the wall. Thus I get absolute quiet and darkness (most essential requisites).

In the winter of 1879-80 I had 27 colonies in bee houses, wintered with a loss of only one colony, which starved, through my neglect. In the winter of 1880-81 I had 50 colonies and lost 21 which died with plenty of stores, but no dysentery. Why it was thus I do not know, unless they tired of life. They clustered over 5 frames and died. My 48 colonies came out A 1, after a "total eclipse" of 135 days. Two spring dwindled some and 10 I doubled up, believing that in "union there is more strength."

How my management will work with blacks I do not know; I keep only the best Italians to be had, and am ready to compare stock with any in America. Bees are just booming now, rolling in white clover. On July 1st I had 9 swarms and saved all. I prepare for winter by setting my hives on a 2-inch square frame, to catch rubbish, take off the covers and cover with heavy duck, with 4 to 6 inches square of wire cloth covering a hole in center of duck cloth.

Grand Meadow, Minn.

Rural New Yorker.

Bees and their Pasturage in Utah.

J. E. JOHNSON.

The bee in Utah is quite a power, especially as we make sugar from neither maple trees, beets or sugar cane, and have only Chinese sorghum and bees to help us to sweetening; all else is imported. Our climate is wonderfully free from moisture and rainfalls are rare, especially in southern Utah; these causes make a scarcity of bee forage growing wild within reach of bee industry. In the northern portion of the Territory winter generally brings enough snow to make the wild flowers bloom more profusely than at this place (St. George). In this country the inhabitants live in villages in the foot-hills, and generally have to go to the river bottoms some miles away to make farms. The towns are provided with water for the gardens, and here the bees are kept. The gardens and orchards furnish forage in a great measure, which together with the wild flowers that bloom early, and the great American bee plant, that grows on sandy wastes and blossoms from January till September, serve to keep these little honey gatherers busy.

Where the fields and lucerne meadows are within 3 or 4 miles from town, there are periods when at the blooming stage of the crops, great help is afforded in honey-making. In some sections the bee plant grows in tracts of many acres, and often borders highways in such a manner as to make bee forage plentiful and rich; in other regions the seed is sown to get it started, after which the plant reproduces itself without further trouble. Where this grows abundantly there is no need of growing plants on purpose for bee pasturage; where it is scarce we plant patches of mignonette, sweet clover, and squash and melon vines, and such garden flowers as are most productive of honey and pollen.

In my long experience of bee-keeping I have found 3 plants superior to all others for the production of honey, viz: the purple-flowered bee plant, next mignonette, and third melilot or sweet clover. The 2 last named will make honey so perfumed as to be far superior to that made of any other plants, and such honey brings fancy prices in markets where it is known and tested. Lucerne makes a nice amber honey and is worked on industriously by the bees, but it does not produce like the plants named above. The mesquite, a shrubby, sprawling tree of the Pulse family, produces a burden of bloom, often twice a year, similar to that of the filbert and chestnut, from which an immense crop of honey is gathered, and some pollen, also.

The lycium and several other honey plants are abundant here. Our average yield of honey would perhaps be about 50 lbs. each season to the colony. Our varieties of bees are Italians and hybrids. In northern Utah the bee industry has been greatly retarded by thousands of cases of foul brood—no case has as yet occurred in southern Utah.

Our Legislature has passed a law providing for the destruction of colonies affected with foul brood, which will materially lend encouragement to the industry. The bee moth is very destructive here to weak and queenless colonies, but in strong colonies there is no danger. Thus far there have appeared no other serious enemies.

To beginners in the business I offer this advice: Do not be in too great haste to increase your colonies or to eat honey—you will get on much faster by going slowly; that is, never weaken your colonies by dividing, or by robbing them of honey; when not rich with honey and full of bees, then 2 frames taken out of a full hive at a time will give room to work. I started here with one colony, for which I paid $15. In 6 years I had 200 colonies, and had lost, by improperly weakening the colonies for increase, an equal number. Had I been more patient I doubt not I might have had 500 strong colonies, and lost none.

In case a colony becomes queenless, it is quite probable there are but few, if any young bees in the hive—now, the young bees are the wax workers, and unless there are some in the hive you cannot get a queen-cell made; the old bees will not do it. When, therefore, a frame of eggs is put into a hive that a queen may be made, be sure to put in also a good quantity of young bees, or the work is profitless. This I have learned by dear experience. A fertile worker is a great nuisance, and difficult to get rid of, but it can be done as easily as anything else, thus: Remove the hive containing the fertile worker several rods from the old stand, and on the old stand place another hive, with a frame of brood and a queen; now take all the frames out of the removed hive and brush off all the bees, and return the frames of stores to the hive in the old place. The workers will return to the old home, accept the queen, and it is done.

Washington, Utah.

For the American Bee Journal.

Robbing Weak Colonies.

S. W. SALISBURY.

The unexpected shortness of the honey crop in many localities seems to develop the tendency of the bees to rob weak colonies. I have tried many expedients described in the books to prevent robbing, with indifferent success. The easiest and most certain way that I know of is to place a decoy hive, partly filled with honey, bedaubed combs, or undrained cappings, in the place of the hive being robbed, having first moved the attacked colony a few feet away. After about 10 minutes I move this colony some distance and give it a new stand. The robbers having all left will return to the decoy hive in force, and there continue operations until they consume its available contents, when they will gradually resume natural work. The bees that belong to the unfortunate colony that return to the decoy hive will finally cluster therein, and can be safely returned to their own colony late in the evening or early in the morning, without loss. In this way I have saved several valuable queens and nuclei, with but little trouble.

Bees wintered without serious loss in this locality; have done only moderately in the way of honey gathering or swarming, and are now mostly idle. Honey is in fair demand at 20 cents for comb, and 15 cents for extracted.

Kansas City, Mo., July 11, 1881.

For the American Bee Journal.

How I Remove the Bees from Frames.

E. M. R.

I wish to say to "H. F. B." that I use a very soft flat brush to remove the bees from frames and surplus boxes. The brush is 3½ inches in width with bristles 4 inches long. I do not know for what use it was intended. I found it among a stock of brushes for sale at a paint and drug store. I first give the frame one good shake, and whisk the balance off lively with the brush. The bees do not dislike it, as a feather; it never hurts nor irritates them. Try it.

Flint, Mich.

CONVENTION
NOTES

Read before the S. W. Wis. Convention.

Bee-Keeping for Profit.

ED. PIKE.

Profitable bee-keeping is not now carried on as much as it will be when bee-keepers are in possession of more practical knowledge on the subject. It is a business that needs a great deal of study, and considerable physical as well as mental ability to carry it out with profit. The worker bees, the queen and the drone should be well understood in all stages of development, and the nature of each class the bee-keeper should be thoroughly familiar with, in order that he may start on the sure road to success. There are times when caution should be observed in handling bees, and the when and why should be known, and not guessed at.

Managing bees for study and curiosity is one thing, but making money out of them, year after year, is quite another thing. Keeping bees for a little table luxury is often very expensive, as most classes of this kind over-do the matter, and kill their pets by too much attention. Keeping bees on a large scale, with a vague knowledge of management is something like a large farm poorly managed—considerable expense and small income.

But either bee-keeping or farming on a large or small scale will, and does pay those who have the brains to comprehend the situation, and make all the conditions favorable to success. Bees need more care than the average number of keepers are in the habit of giving them. There are many different cares to attend to, and the neglect of one might prove a loss. Good, white honey, well sealed, should be left in the brood-chamber to last them the year round. Otherwise, if they go into winter quarters with late dark honey, unsealed, the honey is very apt to sour and give them the dysentery, and they die of disease. Worker combs should be kept in the middle of the hive as much as possible, and all drone comb placed in the upper story. A good colony should fill both lower and upper stories of the hive by June in order to obtain the greatest possible amount of honey. Feeding a little liquid honey from the middle of April till June will do a good deal in populating a hive early enough for the honey flow. Swarming means increase of the apiary, and that does *not* mean honey. If there is plenty of forage, and the bee-keeper has help, without too much expense, the increase of the apiary will fill the measure of reasonable expectation. The prevention of swarming means honey. Now, the point, plainly stated, is this: Which will bring us in the most money, honey or bees? If a colony of bees, having surplus honey from the upper story, will bring as much money as their increase, when run for increase, then which course will the most surely bring us profit? From past experience I would run for honey, because the demand for honey is on the increase. Bees are only wanted for honey and wax, and honey and wax only have a commercial value, while the value of bees is limited to the producing classes only, and whether there will be a demand depends entirely on unforeseen circumstances.

Success in this business depends largely on the queens. Old queens should be replaced by young ones whenever they cease to be prolific. With the practical bee-keeper, rearing queens from inferior mothers is always avoided, for reasons that good and prolific queens only are profitable. The real value of good queens is hard to over-estimate, while poor ones are a positive curse. They are worse than useless. Queens can be introduced at any time during the season, but more successfully during a good honey flow. Good queens are known by prolificness, and the vigor and activity of their progeny, and are not limited to any particular race of bees, a mixture of the different races being desirable.

On the supposition that our hives are stocked with good queens, and that at the end of the season we have a large crop of honey, the next problem is successful wintering. Several modes have been practiced, of which many have been quite successful. Yet the past long, cold winter has demonstrated that in the Northern States no mode of wintering is proof against loss. Some of you may inquire, what is the best method of wintering? To this I would say, that it is rather delicate to assert any one method as the best mode. I have always wintered mine in a bee-house made for the purpose. It is much drier than a cellar, and so far as ventilation is concerned, I know the air reaches the bees in a drier and healthier state than in a cellar.

Out-door wintering and double-wall hives I know nothing of, having never tried them. I have been very successful in wintering so far, and so long as I succeed with my bee-house, I shall "let well enough alone." Ventilation is, I think, of great importance while bees are in winter quarters; and upward ventilation is the most essential. In preparing for winter, quilts should never be laid directly on the frames, an open space over the frames is indispensable.

It is the best source by which the moisture can escape and the heat be retained; the bees also can have complete access across the frames; the heat is evenly distributed over the brood-chamber, and the bees will reremain on the frame, instead of clustering in small squads between the combs to chill and die. The above reasons, in my mind, are conclusive on this subject.

In conclusion, I would say to those just embarking in the business, acquaint yourselves with the proper wants of the bees at all seasons of the year, and attend to them, otherwise, better let them alone.

Boscobel, Wis.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept.— —National, at Lexington, Ky.
 —Kentucky State, at Louisville, Ky.
Oct, 6—Union Kentucky, at Shelbyville, Ky.
 G. W. Demaree, Sec., Christiansburg, Ky.
 11, 12—Northern Michigan, at Maple Rapids.
 O. R. Goodno, Sec., Carson City, Mich.
 11, 12—Northeastern Wis., at Berlin, Wis.
 12—Central Ky., in Exp. B'd'g, Louisville, Ky.
 W. Williamson, Sec., Lexington, Ky.
 25, 26—Northwestern District, at Chicago, Ill.
 C. C. Coffinberry, Sec., Chicago, Ill.
 27—Central Michigan, at Lansing, Mich.
 George L. Perry, Sec.
 27—Western Mich., at Berlin, Mich.
 Wm. M. S. Dodge, Sec., Coopersville, Mich.
1882.
Jan. 25—Northeastern, at Utica, N. Y.
 Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
 A. B. Weed, Sec., Detroit, Mich.
 27—Texas State, at McKinney, Texas.
 Wm. R. Howard, Sec.
May — —Champlain Valley, at Bristol, Vt.
 T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. GOODNO, *Sec.*

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. MILLER, M. D., *Pres.*
C. C. COFFINBERRY, *Sec.*

☞ The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting Aug. 30, at Rock City, Stephenson Co., Ill. JONATHAN STEWART, *Sec.*

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., JULY 20, 1881.

☞ Carefully read and study the lessons so emphatically taught by the Statistical Tables on this page.

* * *

☞ The 21st St. Louis Fair will be held at St. Louis, Mo., Oct. 3 to 8, 1881. Premiums, $50,000.

* * *

☞ The *Patron's Guide*, edited and published by Geo. F. Henry, M. D., at Boyd, Ky., commenced its 4th volume this month. It is a well edited and nicely printed weekly, and deserves success.

* * *

A New Bee Enemy.—A correspondent in the western part of the State says a small, bright, cardinal bird, something smaller than our common red bird, haunts his bee-hives and devours his bees continually. He wants some of the bee-men to give the name of it.—*Farmer's Home Journal.*

Does Mr. Newman, of the AMERICAN BEE JOURNAL, know anything about this new enemy?—*Pat. Guide.*

The bird mentioned has a bad reputation among bee-keepers. Its peculiarly bright plumage has often led to the error of calling it cardinal bird (*Cardinalis Virginianus*), though they may belong to the same family. This bird is also sometimes called kingbird, which is an error. The kingbird (*Tyrannus intrepidus*) is a small, very stout-built bird, with a short, strong beak, slightly hooked at the point. It is of a bluish color, interspersed with spots of white. It is very combative in disposition, and delights in attacking crows, hawks and eagles while on the wing, which fly to enormous heights to avoid it. Notwithstanding Prof. Cook's enumeration of the good qualities of the kingbird, we always feel tempted to deal summarily with it, as also with the red-bird described, by shooting them on the spot and eulogising afterward.

* * *

Beer Adulteration with Glucose.—The German glucose manufacturers have petitioned the Reichstag in reference to the movement to prohibit the use of glucose as a substitute for malt in beer-making. They claim that glucose does not make the beer unhealthful, and plead the nonsensical argument that the prohibition would ruin all potato-growers!—*Exchange.*

Of course, philanthropy is a good pretext for all "crooked" transactions. In this country, the manufacturers of glucose would persuade the unreflecting farmer that without their assistance there would be but a limited market for corn, prices would be unremunerative, agriculture would come into disrepute, and general ruin would befall the country. We are sorry a few—but very few—editors and doctors have found it to their interest to take the same view of the matter, and have displayed the bad taste to attempt to justify the indiscriminate manufacture and sale of glucose and other adulterants.

Losses of Bees Last Winter.

STATISTICAL TABLE.

To make this Table has been a very difficult task—one that has cost many weary hours of steady brain-work—but as it wlll teach many a valuable lesson we are well paid. Some omitted important points from their reports, and left us to hunt over their old letters to find out what hive they used, or in what way they usually wintered, and, in some instances, we had to conjecture whether they were protected or not from the result they reported. The Table is, therefore, necessarily imperfect, but we have done the best we could to wade through the enormous bulk of writing sent in, to ascertain the simple facts in the case.

In the BEE JOURNAL for June 8, Dr. Tinker reported the results of 10,818 colonies. Those he has since received he has sent to us, and they are included in the following table, which aggregates 521,230 colonies, or about one-sixth of the whole number of colonies of bees in America.

COLONIES WINTERED IN BEE HOUSES.

Hives used.	No. in Fall.	Dead.	Per cent. of Loss.
American	4,468	832	.19
Gallup	2,841	676	.24
Langstroth ...	7,792	1,664	.21
Quinby	762	127	.17
Total	15,863	3,299	.21
COLONIES WINTERED IN CELLARS.			
American	9,156	3,096	.34
Box	10,656	4,393	.41
Gallup	4,160	1,664	.40
Langstroth ...	60,217	17,521	.29
Quinby	1,840	644	.35
All others	5,142	2,416	.47
Total	91,171	29,734	.32
COLONIES PROTECTED.			
American	28,746	13,680	.47
Box	4,704	2,016	.43
Gallup	5,360	2,304	.43
Langstroth ...	79,424	34,388	.43
Quinby	13,745	6,128	.45
All others....	13,904	8,722	.63
Total	145,883	67,238	.46
COLONIES UNPROTECTED.			
American	7,363	5,761	.78
Box	196,372	181,296	.93
Gallup	2,342	1,896	.80
Langstroth ...	48,504	30,392	.62
Quinby	3,268	2,416	.74
All others....	10,464	7,980	.76
Total	268,313	229,741	.85
SUMMARY.			
In bee houses.	15,863	3,299	.21
In cellars.....	91,171	29,734	.32
Protected	145,883	67,238	.46
Total....	252,917	100,271	.39
Unprotected..	268,313	229,741	.85
Grand total.	521,230	330,012	.63

All that were left on the summer stands, but which were well packed with chaff, leaves, sawdust, straw, or otherwise, are included under the heading "Colonies Protected;" while those left on the summer stands with chaff cushion or other slight protection (or none at all), are classed as "Colonies Unprotected."

In order to make it more perfect, we have added the results of Dr. Tinker's report, as published in the BEE JOURNAL for June 8, 1881, but our figures show a vast difference in the percentage of loss, in the different styles of wintering, because our report is so much larger than his was. His report included some of the most extensive bee-keepers in America, and gave the results in large apiaries with more progressive bee-keepers, as is shown by the fact that while his report included only 3,420 hives *unprotected*, those protected by being "packed with chaff, sawdust or other material," numbered 4,103, or 25 per cent. more than the unprotected. Our reports generally were made by the progressive bee-keepers, who included all their neighbors in the county or district who had left their bees unprotected, and whose losses were enormous. We report, under the heading of unprotected, 268,313 colonies, or nearly 80 times as many as are included in Dr. Tinker's report, while those protected include 145,883, or only 35 times as many as his.

By the above figures it will be seen that no bees in box hives were wintered in a bee house; 10,656 colonies in box hives were put into cellars, where the losses amounted to 4,393, or 41 per cent. Only 4,704 were protected, and of these 2,016 perished (43 per cent.), while 13 times as many were left on summer stands unprotected, and 93 out of every 100 unprotected colonies perished.

Some have argued that bees in box hives and log gums were more safely wintered, because the brood chambers were undisturbed, etc., and that, therefore, we should return to old theories, and discard the progressive ideas of the nineteenth century. As we have been to much trouble in getting up the above table, let us investigate what it demonstrates concerning the hives named:

BOX AND LOG-GUM HIVES.

How Wintered.	No. in Fall.	Dead.	Per cent. of Loss
In cellars.....	10,656	4,393	.41
Protected	4.704	2,016	.43
Unprotected .	196,372	181,296	.93
Total.....	211,732	187,705	.89
AMERICAN HIVES.			
In bee houses.	4,468	832	.19
In cellars.....	9,156	3,096	.34
Protected	28,746	13,680	.47
Unprotected .	7,363	5,761	.78
Total	49,733	23,369	.47
GALLUP HIVES.			
In bee houses.	2,841	676	.24
In cellars.....	4,160	1,664	.40
Protected	5,360	2,304	.43
Unprotected .	2,342	1,896	.80
Total	14,703	6,560	.45
LANGSTROTH HIVES.			
In bee houses.	7,792	1,664	.21
In cellars.....	60,217	17,521	.29
Protected	79,424	34.388	.43
Unprotected .	48,504	30,392	.62
Total	195,957	83,965	.43
QUINBY HIVES.			
In bee houses.	762	127	.17
In cellars.....	1,840	644	.35
Protected	13.745	6,128	.45
Unprotected .	3,268	2,416	.74
Total.....	19,615	9,315	.47
ALL OTHER FRAME HIVES.			
In cellars.....	5,142	2,416	.47
Protected	13,901	8,722	.63
Unprotected .	10,464	7,980	.76
Total.....	29,510	19,118	.65
RECAPITULATION.			
Box hives	211,732	187,705	.89
All frame hives	309,498	142,307	.46
Langstroth ...	195,957	83,965	.42
Other frames..	113,541	58,342	.51
Grand Total ..	521,230	330,012	.63

It will be readily seen that while the average percentage of loss in box hives is 89, in all the frame hives it is but 46—an unanswerable argument in favor of frame hives.

Those who have contended that the Langstroth hive is too shallow for wintering, will be surprised to learn that the figures compare very favorably for it, thus: the percentage of loss in all kinds of frame hives is 46; exclusive of the Langstroth hive it is 51, leaving only 43 for the Langstroth, being 8 per cent in favor of the latter.

Again, this report records the result of wintering in 521,330 hives; 211,732 of which were in box hives, leaving 309,598 for all kinds of frame hives. Of the latter, 195,957 are Langstroths—*i. e.*, shallow frames—and 113,561 of all others combined. So, that, in numbers the shallow frame hives reported aggregate nearly double those of all other kinds combined. Thus in numbers, as well as in the least percentage of loss during last winter, the shallow frames have the advantage.

We really think these figures settle the matter of "the coming frame." Had deep frames been shown to have the advantage, the BEE JOURNAL would have been ready to advocate their universal adoption, for it has no desire to favor any but the most successful methods, hives or implements.

To prevent misunderstanding let it be distinctly understood, that all frames nearest in size and shape to the four types of hives named (*i. e.*, the American, Gallup, Langstroth and Quinby) have been classed as such, no matter by what other names they may be called—our only object being to classify so as to make an intelligible statistical table—useful for reference as well as interesting for the student.

Another valuable lesson is taught by the following comparison: Colonies of bees protected by being placed in cellars or bee houses, or by being packed on the summer stands, number 252,917; of these, 100,271 died—39 per cent.; 268,313 colonies were wholly unprotected, but the loss was 229,741—85 per cent.—or nearly **thirty thousand more than double the number that died**, out of a like number protected!

These figures will illustrate, better than all the arguments imaginable could do, the advantages of rational, intelligent, progressive bee-keeping, and that it remunerates the apiarist to properly prepare his bees for winter. Notwithstanding the diversity of ways of protecting bees, it will be observed their loss was less than one-half that of those partially or wholly unprotected. They demonstrate, beyond controversy, that nature and nature's ways are not always best, and that the probabilities of loss are stronger against those who "trust to luck" than those who rely upon a combination of industry and judgment.

We would not taunt the "old fogies" who have kept their bees in box hives and log gums, because nature never made a movable-frame hive for them; but we earnestly commend to their consideration the contrast in percentages of loss—box hives 89, all frame hives 46—nearly double, as reported. We have no doubt, however, the proportion of losses was much greater, as thousands of persons in out-of-the-way places have lost the bees in their gums and made no report, considering it no pecuniary loss, as they had never derived any pecuniary gain from them.

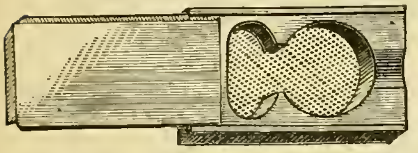
AMONG OUR EXCHANGES.

MISCELLANEOUS.

Queen Cages for Mailing.—Mr.Henry Alley, in *Gleanings*, thus describes the cage he uses:

I shall use a sponge filled with honey instead of sugar candy. Experimenting with candy last year cost me the loss of many queens. I do not lose one queen in 50 with sponge and honey. Now I will explain about the cage. It is made ⅝ inch wide, so as to give more space of sponge to the bees, thus making the food hold out longer. In shipping, the tin might press in, but as I make them the tin is on solid against the wood on all sides, and cannot press in.

In shipping 2, 4, 6, or more queens at one time, I will place the wire face to face, but reversing the sponges, so that the bees in one cage can feed from the sponge in the other. In shipping 3 queens, I will make tin one inch shorter, and cover the sponge with wire cloth, and then the bees in all 3 cages can draw food from their neighbors. Bees in such cages will live from 2 to 3 weeks. I think the pressure of the wire will hold the sponge in place; if not, drive a sharp nail through the side into it. Half a dozen bees to a cage will be all the company a queen will want.



To put bees in the cage, keep up the corner of wire not nailed down, and raise it with the index finger. The spring of the wire will keep it down. I have done this all my days.

I can bore the holes in them with power, and can do it much quicker than I can nail them up. Then again, the cages used to-day are much stronger and neater. I have put a few bees in them, and covered the tin with paper to keep the bees away from the cold tin.

Honey Show in San Francisco.—The *Semi-Tropic*, California, remarks as follows:

The attractive and interesting display, under the auspices of the Bee-Keepers' Association, formed a center around which the apiarists literally swarmed, intent upon investigating the claims of improved machinery, and testing the contents of the various frames and jars, any one sample of which seemed faultlessly clear and delicious to the uninitiated. One hundred and two varieties of honey producing flowers, prepared by J. W. Wilson, of Pasadena, formed a novel and interesting feature of this exhibition. The decorations of white sage were tasteful and appropriate, and the nectar itself, in jars arranged in pyramidal shape, clear as crystal, supported by frame after frame of comb honey, snowy and inviting, made a picture which cannot be photographed except by the artist memory.

In connection with this department, Mrs. Benedict displayed samples of excellent honey vinegar, almost colorless, and above average in acidity; several samples of fruit preserved in honey with undeniable success, and 3 kinds of honey cake, which elicited the warmest praise from those who were fortunate enough to secure a sample. It is urged, and very plausibly, that fruit cake made with honey is richer and retains moisture much longer than that made of sugar.

Altogether, bee-men have a right to be proud of the honey display in this pavilion. With a product that leads the world's market, a life which is too retired to attract any but the thoughtful and intelligent, and an employment that is both pleasant and profitable, we know of no class more enviable than the apiarists of Southern California.

The Honey Crop in Ohio.—The *Bee-Keepers' Instructor* gives the following concerning the crops of honey in the northwestern part of Ohio:

Up to the first part of this month bees were doing remarkably well, taking into consideration the general weak condition of colonies in the early spring. And while we have heard of no excessive yields, a pretty fair amount of surplus has been stored, while colonies have been increasing to a limitless extent. There has not been any excessive swarming like we hear of in some sections of the country. Bees everywhere, so far as we have heard, are in good condition, but how long this will continue we cannot tell, as we are now suffering from a severe drouth, which, if it lasts much longer, is going to play havoc with our honey prospects. The white clover is dead, and dying; basswood bloom has dried up, and the chestnut, of which we have but little, is about gone. The present indications are that bees will barely gather enough honey for awhile to keep them. Should we have good rains soon we may have a small second crop of white clover. Our main dependence, however, for the rest of the season, will be on fall flowers and buckwheat. So far the season has been very satisfactory. How it will wind up is yet to be seen.

Missouri Apiculture.—In the Independence *Sentinel*, Mr. C. M. Crandall says:

In the immediate vicinity of Independence we find the following gentlemen engaged in apiculture:

L. W. Baldwin has 226 colonies.
P. Baldwin has 140 colonies.
F. J. Farr has 120 colonies.
C. M. Crandall has 75 colonies.
Wm. Parker has 80 colonies.
J. D. Meador has 140 colonies.

The product of these 781 colonies aggregates each year over 20,000 lbs. of honey, which yields not less than $4,000. But this is a mere *bagatelle* of the real business. Hundreds of our citizens throughout the country have from 10 to 100 colonies of these energetic honey gatherers, and the entire crop must approximate 100,000 lbs. Of course, this mostly goes to home consumption, still it is beginning to create quite a handsome revenue.

How to Commence Bee-Keeping.—The *Northwestern Farmer*, published at Portland, Oregon, gives the following very sensible advice:

Successful bee-keeping can be accomplished in no other way than by securing large yields of honey. Large yields of honey can be had only by having everything needed ready for securing it. To begin bee-keeping with old-fashioned box or stump hives, and expect to make it profitable, is like killing hens to find eggs. Of course the first thing to be looked after is food or honey, for the bees to gather. If, in the vicinity where it is proposed to keep bees, there are plenty of yielding flowers, you are all right and ready to go ahead; but it is absolutely necessary to go ahead aright.

Good hives first. Several forms are offered for sale at about $2 each, with movable frame. A honey extractor is as necessary to large yields of honey as good hives. A honey knife for uncapping comb, bee veils, rubber gloves, a smoker, a lot of extra hives, and last, though not least, a paper devoted exclusively to bee-culture. The AMERICAN BEE JOURNAL is one of the best. With these, though there are other conveniences, one may safely procure a few colonies of Italian bees. We say a few because it is best for the beginner to go slow. A gentleman, resident in the city, whose time is occupied from 7 a. m. to 6 p. m. in other duties, procured 5 colonies of Italians last spring, and gave them such care as he could. The cost and result of his experiment is as follows: Five colonies at $10, $50; 7 new hives at $2, $14, or a total of $64 outlay. He sold 240 pounds of comb honey during the season at 25 cents, $60, and had 7 new colonies of bees at $10, $70. Good as 200 per cent. on his investment.

The Value of System.—The Marshfield (Mo.) *News*, gives the following notice in its last issue:

The AMERICAN BEE JOURNAL is on our table, and, as usual, is filled with matter of value to every apiarist. Bee-culture is an interest that is of far greater advantage to those who engage therein, if conducted systematically and with proper knowledge thereof, than is usually supposed, and this knowledge can only be gained by studying the habits of these industrious insects. The JOURNAL is the oldest publication in this specialty in the United States, having been established 20 years, and we can recommend it to our readers, who are interested in bee-culture, with pleasure.

The *News* has our thanks for its kind notice. We shall endeavor to always sustain 'the present flattering reputation of the Weekly BEE JOURNAL.

The Crops of the World.—In a country so extensive as America, with climates varied all the way from the torrid to the frigid, the crop of honey will be as diverse as the climate. Speaking of the crops in Europe, we contrast the crop of one country with that of another of the dozen that go to make up the whole. But America comprises as much territory (and diversity of climate) as the whole of the countries of Europe, and crops of all kinds will vary as much, or even more than that of the old world. It is, therefore, not strange to have one pronounce the "crop of honey as unusually large"—that it seems to "rain honey," etc., and another to complain of wet, heat, drouth, and "scarcity of honey"—all are true, and are to be accounted for by the magnificence of the North American Continent.

Of the other crops of the world, the following, from the Chicago *Times*, will be read with interest:

The world seems destined to reap but sparingly this year. The reports from different portions of this country are so uniformly unfavorable that we cannot expect any such harvests as those of the last 2 or 3 years. 'From Europe the reports were rose-colored a few days ago, but one country after another of the old world is coming forward with doleful accounts of the condition of the crops. The French anticipations of a few weeks ago of being for the first time for some years independent of foreign supplies of wheat, seem to have been dashed by an unfavorable change in the conditions, for the last reports gave promise of only an average crop, but little or nothing beyond that. A Berlin dispatch says that the prospect is that the harvest in Germany will be much worse than it was last year, and that the yield will be only ½ or ⅔ of the average. Taking all kinds of grain, and averaging the crops and consumption for the past 10 years, Austria produces 560,000,000 bushels a year, and consumes 530,000,000 bushels, leaving a surplus of 30,000,000 bushels. Germany produces 950,000,000 bushels, consumes 1,065,000,000, and has to import 115,000,000 bushels. France is pretty certain to need forty or fifty million bushels of wheat alone, and England is always a large importer. A particularly copious yield in Russia would supply western Europe without creating any exceptional demand from the United States, but as the average surplus of all grains in Russia is 180,000,000 bushels, while the average net deficiency of Europe is 380,000,000 bushels, the demand for American grain of all kinds must be considerable. If we have less to export than usual this year, we shall at least get better prices for what we do export, unless there is a great change for the better in the grain-fields of Europe.

Old Comb Honey, Candied.—Inquiries are often made as to what to do with old comb honey that has granulated. Mrs. L. Harrison, in the *Prairie Farmer*, some time ago, gave the followihg plan:

When the honey is marketed all unsightly and unfilled combs are removed, and we find much of it granulated, so that extracting is out of the question. A bee-sister once told the writer that she put all such comb honey into a pan and melted them in the oven, and that when it was cooled the wax would be in a solid cake on the surface, when it could be removed and the clear honey would be underneath. We tried this plan, but the honey was injured by being heated too much. We then tried this way, and succeeded much better: The honey was mashed up in a pan, and set over a kettle of boiling water, and stirred frequently. Before the honey was very hot, the wax had risen to the surface, and being set out in the cold, quickly congealed, so that the warm honey could be poured from under it, through a coffee strainer into another vessel, leaving the wax in the pan. After the honey was melted, the wax was all melted up together, and considerable honey of inferior quality was under it, which can be kept separate and be used for cooking, making gingerbread, etc. The rinsings of vessels used in manipulating the honey will make excellent vinegar. The wax can be melted in a pan over boiling water, and should be poured, when melted, through a hot coffee strainer, and when cool will be of a light straw color.

Management of Section Boxes.—The *Indiana Farmer* says:

As the flow of honey slackens off, take from colonies with more sections than they are likely to finish, and put them in place of full sections removed, contracting the room for surplus honey, if necessary, so as to have all the sections finished as soon as possible. Beginners are apt to add boxes as long as the flow continues, and at the end of the season have a large number only partially filled, which must be kept over or extracted.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—But little comb honey is yet upon the market, and the quotations are rather premature. New extracted honey is quite plentiful, and in good demand.

We quote light comb honey, in single comb boxes, 19@21c; in larger boxes 2c. less. Extracted 7@9c.

BEESWAX—Prime quality, 18@20c.

NEW YORK.

HONEY—New honey in 1 or 2 lb. boxes will bring good prices, but as yet there is none on the market, though it is daily expected.

White extracted, 9@10c.; dark, 7@8c.

BEESWAX.—Prime quality, 18@22c.

CINCINNATI.

HONEY.—The market for extracted clover honey is good, at 8@10c.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY—Market quiet and firm. Stocks very light. Holders not disposed to grant concessions. A sale of 100 cases choice extracted is reported at 8½c.

We quote white comb, 12@14c.; dark to good, 9@11c. Extracted, choice to extra white, 8@8½c.; dark and candied, 7½c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., July 9, 1881.

SELECTIONS FROM OUR LETTER BOX

Young Bees and Stores for Winter.—The past winter has forced me to the conclusion that plenty of young bees with good healthy stores are of more importance than any kind of hive for wintering. I fed one barrel of coffee A sugar to my weak colonies of bees in the fall, and wintered all of them, while the ones lost were all strong in bees and had forty lbs of honey in the fall, 2 of which were in chaff hives, but I find that chaff hives or cellars will not give a new lease to the allotted days of old bees.

Dupont, Ind. S. E. O'Neel.

Dysentery, Foundation, etc. — Following is a list of the losses of bees in this section as far as I now know: D. S. had 22, has 4; W. B. had 5, has 3; A. L. had 3, has none; G. B. had 7, has 3; J. F. had 32, has about 12; D. G. had 13, has 2; L. 147, has 1; we 21, have 19. I think the losses are largely attributable to ignorance and carelessness, as we wintered in the same locality on stores gathered in the same fields, and our loss was no more than might be expected any ordinary winter. On the subject of dysentery I am almost confirmed in the belief that an excess of pollen is the cause. We took up 7 colonies last fall, drove 4 in one and 3 in another hive with empty frames, fed them very little honey, and the rest sugar syrup to winter on, having no pollen whatever, and they wintered with very little loss and no sign of dysentery, while some of the others, having honey and pollen as they gathered it, were more or less affected. The season so far has been very favorable; white clover is just beginning to yield some honey, and we look for a fair amount of surplus if the weather is propitious during the coming month. If a colony is boxed and swarms out, leaving the boxes partly filled, is it best to leave them on the parent colony or move them with the swarm? Why are full sheets of foundation recommended for surplus boxes in preference to only a small piece for a starter? I have reference to the thin foundation.

Pine Grove, Pa. W. H. Stout.

[The unfilled boxes are usually left with the parent colony. Most bee-keepers claim that the foundation is a great economizer of time in building comb, and that the larger the surface presented, the greater the number of bees accommodated; and if, as some of the most expert honey producers assert, the thin foundation is no detriment to either honey or comb, and no imposition upon the consumer, then the greater the amount used to advantage the more profitable its use. —Ed.]

Chaff Packing.—I had 13 colonies packed in chaff which have gone through a rigorous New England winter without loss, while the bees in box hives were dead before June 1, and also those in the Langstroth hives. With 2 exceptions my bees came through the winter very strong. I have just been examining my hives; I have 3 hives with 13 frames in each, literally filled with brood, bees and honey; size of frame 12x16, outside measure. I have used this hive since 1873 and have never had a colony die in them; I have found them queenless and united them with others. One gentleman near here wintered some 10 or 12 colonies in a cellar and lost ½ of them. My bees never dwindle in the spring like those wintered in cellars. Others have wintered in cellars and lost none. Bees are working very briskly, and are gathering honey quite fast. J. T. Davis.

Shelburne Falls, Mass.

Plenty of Honey.—I had 12 colonies in the spring, and have 30 now. This is the best season for honey I ever knew. I shall have 1,000 to 1,500 lbs this season, of a very choice article of honey. I. P. Wilson.

Burlington, Iowa, July 7, 1881.

Loss of Bees in Waupaca Co., Wis.—Agreeable to request, I will report the percentage of loss of bees in this county. I find, by careful inquiry, that those left out unprotected are nearly all dead. Of those chaff-packed and left out, 85 per cent. are dead, and of those wintered in the cellar probably 50 per cent. are dead. In many cases a large proportion of this loss is from spring dwindling since they have been carried out, as in the case of my own bees. I wintered in the cellar with a loss of only 10 per cent. until the first week in April, when I carried them out; since then my loss has been 20 per cent. I now have 35 swarms to commence the season with. The bees in this locality are mostly kept in the Langstroth hive—some in box hives yet. My own observation tells me that one of the causes of the great mortality among bees the past winter was in not having them protected until after the extreme cold weather came on; then many of them were removed to their winter repositories with the mercury down to zero. My own experience and observation tell me that in the latitude of Northern Wisconsin that it is desirable to winter in a good, well-ventilated cellar, so arranged that it can be kept at a uniform temperature, ranging from 35° to 40° Fahr. If the cellar is not properly arranged they might as well be left out-of-doors. I can, with the multitude of subscribers of the Bee Journal, say that I most heartily welcome the weekly receipt of it, and very much appreciate the custom of bee-keepers reporting their modes and plans of managing bees, and the results of their efforts; by weighing their experiences in the balance we may benefit each other.

Harvey Feathers.

Royalton, Wis., May 31, 1881.

Transferring.—Bees have done well here this spring. The swarming is about over, and a great many left for parts unknown—more than usual. Basswood bloom is over, and furnished but little honey. Can a novice transfer bees with safety at this season of the year? I like Cook's Manual very much. I. R. Waogoner.

Grantville, Kan., June 24, 1881.

[The best time to transfer is in the spring, but it can be done at any time. Care should be taken not to injure the brood.—Ed.]

Short Honey Crop.—I fear that we may have a poor season for honey. Early in the season we had several weeks of continuous rain; now we have a dry season that is equally disastrous to the honey crop. I really did not know the pleasure I was receiving in perusing the Weekly Bee Journal till I failed to get last week's number. I think its weekly visits are far preferable to a monthly, but I must say I prefer a more convenient size of page, for preservation.

S. E. Thompson.

Shelbyville, Ky., July 11, 1881.

Snow as Winter Protection.—I used 25 chaff and 17 2-story simplicity hives; 1 wintered on the summer stands; one was lost by accident and one by starvation; 2 were queenless. Late in the fall the bees were placed in the center of the hive on the fewest combs possible; all of the lower story not occupied by bees and all of the second story were then filled with fine chaff. A 2-frame nucleus in a simplicity hive thus protected wintered quite finely. In mid-winter I frequently raised the lids and found icicles as long as my fingers on the lower side of the lid; the upper surface of the chaff was wet and moldy. At 2 inches deep the chaff was dry, and from 2 to 6 inches (according to the size of the colony) of the chaff next to the bees would not only be very dry, but warm. I did not disturb them during the whole winter, and kept them covered with snow most of the time.

M. Frank Taber.

Salem, O., June 11, 1881.

That Picture.—On the first page of the Journal, for July 6, I find truly "a picturesque apiary, designed by Mr. A. I. Root." It is, indeed, a beautiful *picture*, but it is certainly not practicable. I never saw bee pasturage that would support 450 colonies, profitably, in one apiary, and in swarming time it would take 10 men to handle them, under ordinary circumstances; and with bad weather for a week, there would probably be 75 to 100 swarms in a single day. The *picture* is all that could be desired, probably, but I would prefer to see a bee-house in the center space, with a lawn around it, with bees all around, etc. I think Mr. Root is better on *pictures* than possibilities, or rather, more visionary than practical. I think a *horse railroad* should be added to run all around the walks to carry off surplus, *provided* they get any.

C. F. Greening.

Grand Meadow, Minn., July 7, 1881.

[The Bee Journal called it picturesque. Mr. Greening says the picture is all that could be desired. Some of the criticisms are right, and just what we like to see. Such a picture, when its faults are pointed out, will make a more lasting impression than pages of words without a picture. We shall all do well to remember the wise saying; "There are flaws in diamonds, flies in amber, and faults in every man." In the discussion of theories we ask no favors, but when we criticise our fellow men let us remember our own imperfections, and chide with love.—Ed.]

Short Crop.—The honey crop in Pennsylvania will be short; June was so wet and cool. Honey is pretty plenty now, but it cannot last long.

R. B. Oldt.

New Berlin, Pa., July 7, 1881.

My Management.—I have thought sometimes of sending a report to the Journal, not having seen any from this county, and my methods differ so much from the common practice of bee-keepers. I use the Quinby hive, 8 frames and honey-board, no division-boards, no cushions, no chaff or other absorbents, no upward ventilation, the hives ventilated below by raising one inch above the board. On the 18th of Nov., 1880, I put 39 colonies into their room in the cellar under the house. It is warm, totally dark, damp, and well ventilated. I put them out March 17; all appeared as well as when put in, but I put them out too soon, and had to double up some of the weaker ones. I have now 34 that are doing well; blacks and hybrids. There are but few bees left in this county. In this township the assessor informed me he found no bees alive except mine. L. Eastwood.

Waterville, O.

Kingbirds and Drones.—I had heard and read so much about chaff cushions and wintering on the summer stands, that I thought best to try the experiment. One trial is enough for me. By the first of February, 6 had gone to return no more. I put the remaining 3 in the cellar and saved them. Mr. Quinby, in his "Mysteries of Bee-Keeping," expressed the opinion that the kingbird destroyed only drones. The same sentiment is also expressed in the revised edition. From recent observation, that opinion seems to me erroneous. My bees were lately very busy about some willow trees in my yard; presumably collecting stores. Two kingbirds, early every morning, were equally busy with the bees. I have never noticed drones out early in the morning, and have never known them to collect stores; hence I am of the opinion that the kingbird destroys workers. That his instinct may teach him to reject the abdominal portion of the insect, and thus avoid the sting, is possible, but does not help the case.

St. Joseph, Mo. S. P. Hyde.

My Second Report.—On June 1st I found my number very much reduced to what it was when I reported in February; then my loss was less than 20, but the cold month of April was the hardest on my bees of any part of winter. The 25 colonies in box hives with which I commenced the winter, now number but 3; of 123 in chaff hives I have lost 46 (21 of them being last year's swarms); they died of dysentery, caused by too much unsealed honey; the others died from different causes, some from failure of old queens and some from bad shaped combs. By careful examination I satisfied myself that there was a good cause for the loss, taking into consideration the long, cold winter, which has taught me one of the most valuable lessons of my life. It should cause us all to make more thorough preparations; then if the winter is mild we are all right, and if severe, the small amount of extra labor will pay us well for the trouble of careful packing and securing proper ventilation, which I consider a very important element in successful wintering. J. M. France.

Auburn Corners, Pa.

How to Exterminate Ants, etc.—I notice the request for a plan to exterminate "little black ants" from hives of bees. A solution of salt, or dry salt (chloride of sodium), sprinkled where the said ants infest the hives, sends them a "kiting"—an effective means of getting rid of the pests. Try it. Bees love salt as condiment, and I add a pinch of it in their feed. I also notice the request for a receipt for making grafting wax without compounding beeswax with it. A celebrated pomologist published a receipt for compounding a grafting wax made of alcohol, rosin, and spirits of turpentine. I have made and used it, but do not remember the proportion of the ingredients. It has been used by many claiming that it was superior to any other. C. J. Robinson.

Richford, N. Y., July 4, 1881.

Honesty and Dishonesty.—Honesty is the offspring of conscience. From this first principle all rules of behavior are drawn. It teaches us the difference between right and wrong; teaches us to shrink from everything evil. There are some men who seem to have no conscience, who come into the world to seek only pleasure and wealth, and care not by what means they are obtained. It is for such men that we need compulsory honesty, and it cannot be demanded on too broad a scale. Adulteration is not confined to honey. We poison our drugs with cheaper material; we sell shoddy for wool; we sell veneering for solid wood; we rob and cheat each other all around, and in every trade and business; we are rapidly destroying our national sense of honesty and integrity. How is it we elect legislators who need petitions presented in order to get them to make laws for the protection of the people? We want laws as broad as the United States, protecting honest and innocent men. We do not want a law shielding honest honey-producers alone, and do not want our law-makers to look at it in that light. We hear the complaints of thousands of other honest men, and we want laws protecting all. There is lots of dishonesty in America. Realize this, and uphold truth and honesty.

Covington, Ky. A. E. Foster.

Repairing Losses.—I have been dividing my bees, according to the directions given in the Bee Journal on "Repairing Losses by Division." Had I read the Bee Journal 2 years sooner it would have saved me more than $200. Henry Zeis.

Pacific, Mo., June 30, 1881.

SPECIAL NOTICES.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

◆

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

☞ When changing a postoffice address, mention the *old* as well as the new address.

◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆

Photographs of prominent Apiarists —Langstroth, Dzierzon, and the baron of Berlepsch.—Price 25 cents each.

◆

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

Because it adds to Personal Beauty by restoring color and lustre to gray or faded hair, and is beneficial to the scalp, is why Parker's Hair Balsam is such a popular dressing. 27w4

◆

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

◆

Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. It will pay to devote a few hours to the BEE JOURNAL.

◆

It is a Foolish Mistake to confound a remedy of merit with the quack medicines now so common. We have used Parker's Ginger Tonic with the happiest results for Rheumatism and Dyspepsia, and when worn out by overwork, and know it to be a sterling health restorative.—*Times.* See adv. 27w4

◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T.G.Newman)		..$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00..	2 75
Bee-Keepers' Magazine (A.J.King)	3 00..	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75..	2 50
The 4 above-named papers	4 75..	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50..	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50..	2 35
Kansas Bee-Keeper	2 30..	2 15
The 7 above-named papers	6 05..	5 00
Prof. Cook's Manual (bound in cloth)	3 25..	3 00
Bee-Culture (T.G.Newman)	2 40..	2 25
Binder for Weekly, 1881	2 85..	2 75

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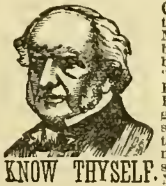

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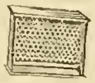

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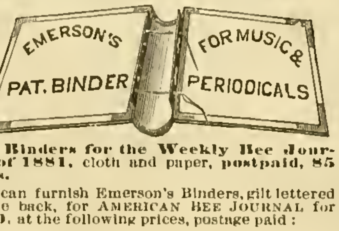

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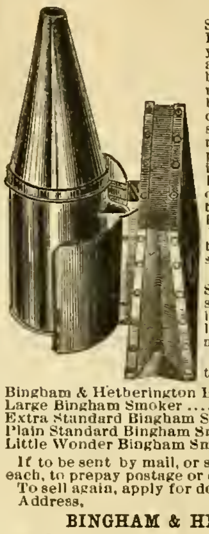

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THE AMERICAN BEE JOURNAL

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CONVENTION NOTES

Read before the Entomological Society.

Relation of Apiculture to Science.

PROF. A. J. COOK.

I once heard a well-known professor and scientist, than whom there is no better student of American agriculture, remark, that the art of agriculture was founded almost wholly upon empiricism; and that all it had to thank science for was that the latter explained what had already been determined by the empiric method. Whether this be true or not, the reverse is most certainly true of practical entomology. Economic entomology rests almost wholly upon science. Fear deters most people from bee-keeping, unless a desire to study bees, and to know more of the nature and habits of these marvels of nature, impels to that close association with bees, which practical apiculture demands.

For this reason, there is no class of men engaged in manual labor pursuits which possesses the intelligence and enthusiasm which characterize apiarists, or which practices so much that is really scientific. The successful apiarist of to-day must be able to inspect every part of his hives; must be constantly familiar with the precise condition of every colony of his bees; must be possessed of quick and accurate powers of observation. Thus we understand why science has gleaned so much from practical apiculture.

The nature of the several bees in each colony, as to sex, function and longevity, is now well known to every intelligent apiarist. The peculiarity of queen, drones and workers, and the peculiar duties of workers of different ages, are matters of daily observation.

The queen is seen to lay 3 or 4 eggs per minute, and the apiarist, by adding comb with empty cells, proves that she may lay as many as 4,000 eggs der day. Aristotle was correct, then, in calling the queen the mother, and Virgil wrong in pronouncing her to be the king. Her hatred to rivals is easily shown by the certain combat, fatal to one of them, when two queens are placed together. This enmity induces swarming, as bees rarely suffer a plurality of queens in the same hive. In swarming the queen never leads, yet the special place of clustering is usually determined by the queen. Unless the queen accompanies the swarm, the latter will always return to the hive.

By clipping one wing of a virgin queen, so that flight will ever after be impossible, the bee-keeper quickly proves the correctness of the great Huber's discovery, that queens always mate on the wing. The same experiment proves the correctness of Dzierzon's more wonderful discovery, that drone bees are a result of agamic reproduction. No queen whose wing is clipped while yet a virgin, so far as I have observed, and I have tried the experiment many times, will ever lay eggs that will produce other than drone bees. It is also true that if a queen is forced to virginity for 3 or 4 weeks, she will always remain a virgin.

Upon the queen's return from her mating flight, we may observe the evidence of success, as she always if successful bears away a portion of the drone's reproductive organs, which remain attached to the queen for some hours.

It was a theory of the late Samuel Wagner, that the placing of unimpregnated eggs in the larger cells of the drone comb, and the impregnated ones, in the smaller worker cells, was simply automatic. The pressure of the smaller cell upon the queen's abdomen, forced the sperm cells from the spermatheca, as the eggs passed by. As there would be no such pressure from the larger drone cells, the spermatoza would not be extruded from the spermatheca. Practical bee-keepers have shown this to be untrue.

Queens have been seen to lay eggs in the still larger queen-cells, which are always impregnated. The queen often lays in worker cells, where the walls are but just commenced, and where there is no compression; yet such eggs are always impregnated. That the bringing of the sperm cells into connection with the germ cells, or the withholding of them, as the eggs are to produce females or males, is a matter of volition with the queen, is sustained by the muscular character of the spermatheca. It is a curious fact, that young queens, when they first commence to lay, often put several drone eggs into worker cells, though after the first day or two, they generally deposit only impregnated eggs for the first season. It seems probable, that the muscles of the seminal sack of the queen do not act efficiently until somewhat in practice.

An anomalous physiological fact is illustrated in the flight of the queen when swarming takes place. Though she may not have used her wings since her marriage flight, possibly for two or more years, yet the muscles are by no means atrophied, as shown by her rapid flight, often several miles, *en route* to her future home.

The reason why a few impregnated eggs develop into queens, while thousands of the same produce worker bees, appears to be wholly due to quality and quantity of food. The enlarged cell is necessary to a full-sized queen, but not to a queen. The exceptional position of queen-cells is simply for convenience, as it is not important.

Direct observation, as also her removal from the hive, shows that the only function of the queen is to lay eggs.

I have known queens to lay with no abatement of fertility for 5 years, though often in one or two years she ceases to be prolific, either from her own impotency, or from a depletion of the spermatheca, in which case only drone bees are produced. Usually the worker bees arrange to supersede the queen before she becomes an exclusive drone producer.

Common observation proves that the drones are males, that they are great eaters, and that they have no function in the economy of the hive, except the sexual function. As already explained, the drone loses a portion of his reproductive organs, in mating, which is attended with immediate death.

Though doubt is sometimes expressed as to the origin of drones by parthenogenesis. there is no such doubt among intelligent apiarists. If the wing of the virgin queen is clipped, or the entrance to the hive so contracted that she cannot fly, or again, if she is reared when there are no drones, she will be, not sterile, but from her eggs will come only drones. Often these will be in the small cells, when the drones will be no longer than the workers. The eggs from fertile worker bees, and also from old queens, with depleted spermathecas, will likewise produce only drones. In appearance and structure these drones are every way normal. I have no doubt but that they are functionally perfect.

There is an interesting fact connected with the appearance and disappearance of drones, whose explanation seems to call for an intelligence above instinct. As the colonies become very populous in spring, the worker bees build drone comb, and rarely even tear down and replace worker with drone cells, and the queen lays the unimpregnated eggs in such cells, preparatory to rearing queens, and to swarming. If we remove a queen, none but drone comb will be built. Now suppose a colony is strong and preparing to swarm, and suddenly, from lack of bloom, continuous rains or great drouth, the secretion of nectar suddenly stops. Honey gathering of course ceases. brood-rearing is discontinued, and, not infrequently, the bees kill all the drones, and even drag the larvæ and the pupæ from the cells. As soon as the honey harvest is hopelessly cut short by the autumn frosts, the worker bees commence at once to bite and worry the drones, till the latter are driven forth to die. But if the colony be queenless, or if the queen has become superannuated, the drones will be permitted to remain in the hives all winter. The fate of the drones hangs on the prosperity of the colony. With rapid increase of bees and honey they are safe; adversity in these respects, unless caused by loss or impotency of the queen, betokens their speedy extinction.

Drones are tolerated in a strange colony, which is not generally true of either the queen or the workers.

The longevity of drone bees, as we have seen, is largely dependent upon circumstances. There is good reason to believe that they may live through the entire season.

The worker bees are imperfectly developed females, which from receiving less and different food while larvæ, are immature in their sexual development. A worker larva, less than 3 days from hatching, will, if given more and richer food, develop into a queen. If an apiarist allows a colony to go queenless for a long time, fertile workers are almost sure to appear, from whose eggs, however, none but drones are produced. Some apiarists suppose that such workers receive, perhaps by accident, a richer and more abundant pabulum. I have wondered if this might not verify Lamarck's idea of evolution. The bee desires eggs, and the deeply felt want induces the extra ovarian development.

The worker bees are shorter than the drones and queen, and less robust than are the drones. Their wings are small but strong, and move very rapidly in flight. When the bees are angry the rapidity is still more marked, and there is a corresponding increase of pitch to the hum.

The workers, as the name implies, do all the work of the hive, hence a reason for their better developed mandibles, with which they cut comb, remove cappings and dig pollen from the cells; their longer tongues and maxillæ, with which they extract nectar from deep tubular flowers, and the deep baskets on their posterior tibiæ and basal tarsi, which are wanting in the queen and drones, in which they carry pollen and propolis to their hives. As they protect the hives from intrusion, they need and possess a better developed sting than that of the queen, which is only used in dispatching rivals.

By the introduction of Italian bees, which differ greatly in color from the German or black bees, bee-keepers have learned that the old bees, for the most part gather the honey, pollen and propolis, while the young bees remain within the interior of the hive and secrete the wax, build the comb, feed the brood and cap the brood cells, though the old bees will do the work of the young ones if for any reason the natural equilibrium of the colony is destroyed.

That bees possess and use the sense of smell is obvious to the apiarist. If he unite 2 colonies, they often engage in fierce combat, which only terminates when one of the parties is vanquished. By smoking, sprinkling with an essence, or otherwise giving to both colonies the same scent previous to the union, perfect peace and harmony is secured. The same fact leads to somewhat similar precautionary measures in introducing queens.

In going to any place, bees seem to be guided by direction rather than sight. Thus if we move a hive, but for one or two feet, the bees will, for days, descend to the old position, and then turn abruptly to the hive. I have been led to notice a strange exception to this: by placing honey on a porch of one or two houses that are exactly alike, but about 5 rods apart, many bees were misled and swarmed about the porch on which there was no honey. The experiment was several times repeated.

Experience shows that bees will winter quite as well with pure honey or sugar syrup for food, as though they had pollen with it. They may be kept healthy at least for a time, in confinement, in summer, on a pure hydro-carbonaceous diet, and will secrete wax and make comb with the usual activity. But pollen is a *sine qua non* to brood-rearing. Probably it is also necessary for the old bees, at times of great activity. Bees also need water. Unless very active, this want seems to be met by the water of the honey; but in shipping bees they are now generally fed with candy or crystallized sugar, and unless water is added, they perish in a few days.

Nectar, as gathered from the flowers, contains much more water than does the honey. The bees leave the nectar, which is often nearly as thin as water, some time before capping, until the necessary evaporation has transpired. Bee-keepers call this the curing process. Some nectar is so thick that it is capped very soon, though frequently it remains for days, and rarely is it of such a nature that it does not thicken, and the bees refuse to cap it at all. Such nectar, usually from bark lice, etc., is unwholesome, and unfit food, even for the bees. If thin nectar is extracted, bee-keepers evaporate the moisture from it by artificial heat, as it does not preserve its quality unless rid of the superfluous water.

One of the most terrible disasters that can befall the apiarist is to become the victim of foul brood. In this terrible disease a fungus attacks the brood, which causes it to become putrid and disgusting. It is very contagious. The disease is common in Europe, and has brought ruin and discouragement to apiarists in several of our own States. Spraying with salicylic acid has been found an efficient cure.

The enemies of bees is certainly a matter of much interest to all scientists, and especially to zoologists. Among mammals, shrews and mice are often quite destructive to bees. The kingbird, *Tyrannus Carolinensis*, captures worker bees, although it is partial to drones. Toads and frogs seem to lap up bees with no inconsiderable relish, and often work quite successfully to deplete the hives.

Bees have many and formidable foes among insects. In the order Hymenoptera, a species of Xylocopa, probably *X. micans*, has been observed to kill bees in North Carolina. The cow killer, *Mutilla coccinea*, destroys bees in the States from Central Illinois to Texas. It has been reported several times that ants are at times a serious foe to the honey bee. It is stated that they not only worry the bees by invading the hive, but that they sometimes kill both the queens and workers.

The only lepidopterous insect which annoys American apiarists is the bee-moth, *Galleria cereana*. And even this is no dread to the intelligent apiarist. It is found that strong colonies of bees—and none others pay—and especially if Italians, will always defend themselves against this enemy. It is only weak or queenless colonies that succumb to this foe.

Among Diptera, *Bombylius Mexicanus*, is reported to enter the hives, in Texas, without resistance and lays its eggs, where the prospective larvæ will be nourished and cared for, without labor on the part of the mother fly. The family Asilidæ affords the most serious dipterous pests to the apiarist. Of these there are at least 3 species of Asilus, 2 of Mallophora, 2 of Promachus, 2 of Laphria, and 2 of Erax, that catch and kill bees. These predacious flies work the most serious mischief South, but are not exempt from blame even as far North as Ontario. A parasitic fly of the family Tachinidæ is destructive to bees in several of the States.

In importing bees, the bee louse, *Braula coeca*, has been introduced from Europe; but so far it promises to do little harm in our country.

Amongst Heteroptera, *Phymata erosa* is a dreaded foe of the honey bee. From its close mimicry of the flowers of many composite plants, in which it is wont to hide, it finds it easy to grasp the bees with its unique anterior legs, when it soon sucks out their life juices. *Mantis corolina* kills bees from Central Illinois to the Gulf.

Many of the Libellulidæ, chief among which is *Anax junius*, are so fierce in their onslaught on bees, that they have been termed bee-hawks. These marauders depredate in all sections of our country.

I need not speak, at this time, of the value of bees in fertilizing flowers, as that has been ably discussed by our botanical friends. That bees ever injure buckwheat or other plants, by seeking nectar from their bloom, as is sometimes claimed, is known to be erroneous by all present. That they are equally harmless to grapes and other soft-skinned fruits is not so generally granted. Personally, I have never seen a case, though I have several times gone quite a distance to see them at the request of positive individuals. In each case the bees were found never to attack sound fruit, but only to sip from such as had burst, or been torn by other insects or by birds. While I am not positive that bees are never guilty of such wrong-doing, I do feel certain that such actions if ever true, are quite exceptional. I have lived in California in the midst of apiaries and vineyards, and I have yet to see the first case of such depravity among bees.

The 2 great improvements in apiculture since the Langstroth hive, and scientific knowledge gave the apiarist such control over his bees, are the extractor and comb foundation, both of which are recent inventions. In both cases the thought came from Germans, but perfection in carrying it out is due to Yankee genius.

The honey extracter works on the principle of centrifugal force, and by its use honey may be thrown from the combs before it is capped over, or afterward if the cappings be first removed with a knife. By this practice the comb is used over and over again, and as a result, at least twice as much honey can be secured. Experiment proves that it takes at least 20 pounds of honey to secure one of comb, besides the time of secretion is lost, as bees are usually quiet when employed in secreting the wax-scales.

Extracting is often very necessary to furnish room for the queen, so that she may lay eggs. In times of great honey secretion, the workers so fill the cells with honey that the queen finds no place for her eggs, so brood-rearing ceases, and as the workers live only for a few weeks during the active season, depletion of the colony is rapid and sometimes is carried to a fatal extent.

When bees cease gathering, from lack of nectar secretion the queen stops laying, and all brood-rearing ceases. Nothing is found to pay the apiarist so well as to feed sparingly, whenever there is a cessation from gathering honey, and so keep his colonies strong. The extracted honey furnishes a cheap and excellent food for this purpose.

Comb foundation is made from pure beeswax and is a perfect copy of honey comb, as just commenced by the bees, except that it is much thicker. When given to the bees, they at once accept it, thin it to the usual thickness of natural comb, and use the parings to complete the cells. This saves the time and work of wax secretion and comb building, and secures straight combs, and exclusive worker cells.

Agricultural College, Lansing, Mich.

CORRESPONDENCE.

For the American Bee Journal.

Poor Crop, Wooden Separators, etc.

JAMES HEDDON.

A May drought put white clover back so it lapped over on basswood; the latter yielded honey very moderately, and for a short time only. We could hardly tell when it commenced and left off. I report the white honey crop (which is usually about $\frac{2}{3}$ of all) as not over $\frac{1}{3}$ of a crop here. We now look forward to fall flowers. "Hope on, hope ever;" "Man never *is*, but always *to be* blessed."

Messrs. Greiner Bros. say their bees are just going for the side boxes and almost neglecting the top ones, and that this individual experience of theirs is better argument than any philosophy. Yes, it is to them; but Mr. Demaree says that he is "sorry that Mr. Heddon asserts that bees will attach the comb to wood separators, because it indicates he writes about some things about which he knows but little." I had used wood separators, and know of their being thrown aside by others. It is my duty, as a stranger to Mr. Demaree, to try to point out to him that there is philosophy in supposing that bees would not be as likely to attach a comb to a substance that was moist with condensation, so hard that the bees could not move the first particle of it when they wish to lay the first scale of wax with which to make a "brace," and a substance entirely foreign to them in a natural state, as they would to wood, which is their time-honored housing. I ought to try to show him that the main reason why tin is objected to, is a good reason why the bees will not be so likely to attach bits of comb to it, to leak and muss up our surplus when removed. I ought to ask him if he has not found out that even painting a surface tends to prevent comb attachments? To convince him, I am too far off; his experience is close by, and his reason still closer.

Dowagiac, Mich., July 13, 1881.

* * *

For the American Bee Journal.

Cleome as a Honey Producer.

D. S. GRIMES.

My hobby has always been trees, fruits and flowers, but 3 years ago I added bees. Although ignorant and inexperienced in the business, I found them an interesting subject of study, and soon learned to love them on account of their intelligence, industry, and the sweet stores of honey provided for our table, here in an altitude high and dry.

In reading the experiences of the correspondents of the Bee Journal I have learned much. Since I learned to treat bees with gentleness and common-sense, my daily pilgrimage through beds of flowers and blocks of nursery stock, on the double-quick, driving a few angry bees around, has ceased—we understand each other better. I have learned, also, that when bees find but little honey to gather, and are hungry, they are cross.

Last year I had 40 colonies, but my manipulations in dividing and wintering destroyed half of them. I have the 40, save one, again—strong and healthy (thanks to the Bee Journal and Mrs. Harrison)—now gathering and storing large quantities of excellent honey from cleome, the Rocky Mountain bee plant. Were it not for this valuable honey producing plant, bees in Colorado would find poor picking from now on. As the bloom of the raspberry, white clover, and wild flowers of the plains pass out of season or dry up, then this bee plant commences to bloom, and continues to grow and bloom until cut off by frost. To the apiarist this plant promises a valuable future, and should be better known. The seed being almost as heavy as mustard seed the wind will not blow it away, but it remains where it is first sown, preferring the road-side or waste places, where the plow and hoe are not used. Bees probably do better in the parks and valleys of our mountains than around Denver, on account of the large quantity and variety of flowers found there.

There is a plant growing all over the Rocky Mountains, up to the snow-line, the mountain people call it "kinicanick" (I do not know the botanical name). This plant has small, thick, dark-green leaves, growing flat on the ground, covering the earth like a green carpet, producing a small white flower in early spring, which continues in bloom a long time. From this plant bees find pasturage equal to white clover.

A boarding house keeper, on Bear Creek Canyon, at an altitude of 10,000 feet, has a small apiary doing remarkably well. He has never had a case of dysentery, or any other disease, among his bees, and his honey is equal to the best California. Success to the Bee Journal.

Denver, Col., July 16, 1881.

* * *

For the American Bee Journal.

Stingless Bees of South America.

C. A. HARDEY, M. D.

Dear Editor: In compliance with my promise, I send you a description and history of the stingless honey bee, as seen by me in Mexico, from notes made by me while there. This bee, slightly differing in size and color, is found in the heart of the dense forests of the middle and southern parts of Mexico, and all the States of South America. It hangs its hive or nest upon branches of trees, like the *Apis dorsata* is said to do in Java and the islands of the far East. This nest is composed of nearly the same material as that of the large yellow hornet, is pear-shaped in form, is from 18 inches to 3 feet long, and from a foot to 20 inches in diameter, is divided into partitions, or portions, not unlike an orange, with passages an inch wide running from top to bottom, of very thin material, like gray or brown paper.

There are one or more entrance holes near the top, each protected by a cap or portico from rains, with one or two holes at or near the bottom for exit; these holes are about $1\frac{1}{4}$ inches wide, and are large enough to permit several bees to go in or out at once.

The hive is suspended by 2 or 3 ligaments of strong fibrous material, slightly elastic, permitting the gentle balancing of the hive from the action of the wind. The hive is thoroughly water-proof on the outside, somewhat rough, of a brown or grayish brown color; on the inside it is smooth and of a delicate yellow, and extremely clean. The honey cells are elongated, about $\frac{1}{2}$ inch in diameter, rounded, and slightly perpendicular, and about 1 inch long. The brood-cells are slightly less in size—$\frac{3}{4}$ of an inch long and $\frac{3}{8}$ in diameter—they are placed like gently rising steps, one above the other, adhering to each other by one side. Some of these nests are very large and heavy; some must have weighed 100 pounds.

The cells are situated always opposite each other, that is, are attached to opposite sides of the divisions, with inch holes here and there for free passage.

The workers are about $\frac{1}{2}$ inch long, of a yellowish color, strongly made, black head, black crescent on the back, with white bars in the corselet divisions, have very long tongues and strong mandibles—their only defense—which inflict severe bites when the bee is angry.

The queen is nearly an inch long, of a bright-yellow color, brownish head with white star in forehead, is very corpulent and very quiet, unless disturbed by a blow upon the nest or a violent wind. These queens did not move until the combs were taken out, then, after flying around a little, they returned to the hive or nest.

The drones or males resemble the workers in color, but have the white star like the queens. Both the drones and queen have yellow bars upon the corselet, but those of the queen are of a golden-yellow, inclined to azure. The drones are about ⅝ of an inch long, very corpulent, and apparently very indolent. The workers are very active from sunrise till about 11 o'clock, they then cluster about the nest or branches near the nest.

The honey is very rich in taste in the spring, but I am told that in the latter part of the season it will cause vomiting and purging in certain places, where the wild locust and jessamine are abundant.

The bees may be found in the dense forests and chapparals from near Matamoras to San Louis Potosi, and perhaps to the Pacific. I found them at Matamoras near Lago del Muerte, near Reynosa, in the mountains near Monterey, and in the regions along the route from Monterey to San Louis Potosi, also at Monclova. They may be found in the regions around Tampico, in Gautemala, Brazil, and other South American States. The natives sometimes bring the nests for sale, honey and all; the holes of entrance and exit closed with a plug of grass, and the nest swung upon a pole over the shoulder.

Might not this race of bees be crossed with the Italians or Cyprians? Will they endure our winters? They are very gentle, never even biting unless abused.

I removed the honey from the nest by simply slitting upon the outside covering or case, turning a portion back and cutting out the part wanted, the bees flying around making a noise something like that of the common humble bee, though a little sharper, lighting upon the person and crawling around with great activity and excitement. These nests are difficult to find and are always in the deepest and most shaded parts of the forests.

Chataignier, La., July 12, 1881.

[We see no object to be attained by crossing the stingless bees with the improved bees we now have, even if it were possible. They are quite small, and not at all suited to our climate. Their severe "bite" might prove more objectionable than the stings of Italian bees; or the crossing might develop "business" qualities at both ends. We do not think we want the stingless bees.—Ed.]

For the American Bee Journal.

The Bee-Nuisance Question.

J. H. MARTIN.

I think, in relation to this nuisance question, that Mr. Heddon does not take into consideration the fact that the case I mentioned was located in a little hamlet of half a dozen houses, and only 2 or 3 families were afflicted with bee stings. I think in that, and all similar cases, an interchange of neighborly civilities would have healed all pains. If I give my neighbor a pound of honey he will, in due time, return the favor, unless he belongs to that class of four-footed beasts which once ran down a steep declivity into the sea.

I not only give to my neighbor, but his family sometimes, during the extracting season, come into my apiary, and I give them of the fruits of the time; but a few ounces are consumed, and it is a pleasure to us to see them get satisfied. A bee-keeper in an adjoining town adopted the plan of kicking and stoning boys who came near his bees; the result was that one morning several hives were found tipped over, and the colonies nearly ruined. If those boys had been fed judiciously they would have been helpers instead of destroyers. The motive of giving may be termed fear, or selfishness, but we think the little rule: "Do to others as you would have others do unto you," covers the case.

When an apiarist gets so penurious that he cannot part with a few ounces of honey, he belongs to that four-footed class above referred to. Not to be misunderstood, I refer only to localities in the country, many miles from large villages. If I were located in such a place where the giving became a wholesale transaction, I, too, would choose who should be the recipient of favors.

In all these cases of nuisance, when applied to bees, one fact is very prominent. The bee-keeping business is looked upon by the majority of people as a small occupation—"fussing with bees" is the usual term applied to it. Our neighbor runs a dairy of 20 cows, and who ever heard of a man "fussing with cows?" His manipulation of cows' udders brings him in $400 or $500; our bees net us as much with less foddering. Still his dairy is a big thing, and is getting to be of so much importance that the Goddess of Liberty should have a roll of butter in one hand, a cheese in the other, and a calf tied to her apron strings.

We find, in nearly all cases of nuisance, it is that which causes injury to people that is complained of. A stench, that carries disease and death with it, from any cause, is soon abated, and when a person gets stung and has to call a physician he does not think of your one or two thousand a year, it is of the danger to himself. Our bees might roar every day, the year round, and no one would call them a nuisance.

Those logs Mr. Heddon speaks of are very harmless, but arm each one with a spear, ready to pierce the traveler, and the mill and its surroundings would soon be denominated a nuisance. The same with the steam-whistle, if it caused pain or swelling in the ear you would soon hear no more of it, but as we are a 4th-of-July nation, the majority of us like a good deal of noise. In conclusion, we think we are greatly blessed by having our bees located in the quiet country. We have none of those opulent, purse-proud, selfish families for neighbors. We all stand upon a common level, and can interchange courtesies without motives of fear or selfishness.

Hartford, N. Y.

For the American Bee Journal.

Wintering Bees without Loss.

D. S. BASSETT.

I am well aware that the subject of wintering bees is rather old now, but as we shall soon have to go through with it again I thought no harm in telling you how I have done for the last 4 winters, without the loss of a single colony. I have but few colonies, but keep them just as well as I know how. Last winter I had 9. I increased by natural swarming to 19, and did not feed them, either. Now I have 30 from the 9. My bees are very hardy, I think. My first experience in wintering bees was in box hives, and since that in Root's chaff hive, using oat chaff altogether. I put the bees on as few frames as possible, with plenty of sealed honey, and use a division-board made of lath, thin boards nailed on one side and duck on the other. I put the duck next to the bees, in winter, filling all the space between the division-board and the hive with loose chaff. I put 2 thicknesses of Java canvas over the bees; then I put a good half bushel of loose chaff on the canvas, and then put the large chaff cushion on. In 2 hives the loose chaff became rather damp in February, and I changed it for dry. Last winter my bees were 4 colonies of blacks and 5 of Italians; now I have 5 blacks and 25 Italians and hybrids. My blacks swarmed 4 days before the Italians. I take 6 bee papers, and I like them all, but it is nice to have one every week, and especially one as good as the American Bee Journal. You may put me down as a subscriber as long as I keep bees, and I wish its editor health and success.

Farnumsville, Mass.

For the American Bee Journal.

The Honey Crop in California.

J. D. ENAS.

About the last that I wrote to you regarding our honey crop was a favorable prospect for a good supply of the nectar; that was at the beginning of the season. The prevailing idea now among the majority of honey producers is that we shall not have much surplus. In some counties the reports are more favorable than in others. San Diego, for instance, but even there it differs, if near or further from the coast. Frost, cool rains, and cool weather (especially cool nights) have had much to do with poorer returns than last season, although the season was one month earlier than the season before. Wild flowers did not go to seed; the bloom was prematurely killed, and at one time neither pollen nor honey was gathered, and the queens stopped laying.

Some honey is being gathered now, and the queens are laying again. Pollen from fall flowers is coming in plentifully from the California poppy and doveweed. My bees are working on the azalia. Some melilot, that I allowed to go to seed last fall, and appeared above ground in the spring, on unplowed land or stubble, has entirely disappeared. I found a large bed of blue sage that showed the effect of the frost; it had scarcely any seed in its pods, and most of that was white and had not ripened; although it grows from the root, it does not die out in our winters. I find that the poplars are shedding their leaves, as well as the almonds. These are signs of early fall weather; in fact the weather has seemed more like fall than summer. We have had only a few very warm days. As soon as the sun gets down a great change in the atmosphere seems to take place, probably owing to the planets or the comet.

I increased 50 per cent. by natural swarming, though I kept it back as much as possible. All my colonies are in good condition, though at one time they had a very little honey. By using comb foundation most of them have filled out their hives, besides replacing some old drone and irregular combs. I gave all partly-built combs, after trimming out the imperfect parts, to young laying quuens in 3-frame nuclei. I save the empty perfect comb by tiering up, using false ends to rest the frames on, as they are in the hive, over a 12-inch box, with an iron pan set in it, and burn sulphur in the pan, occasionally, until time to use them again. They must be kept dry or they will mold, and must be often examined. I do not think it worth while to save any but perfect comb, for by using foundation combs are quickly built in the spring. I hive swarms on empty frames, except one frame of brood, and 2 outside empty combs or those partly filled with stores. After giving them foundation I have had the lower part built out ready for extracting in one week; in some cases by returning the bees and old queen.

It is hard work to rear early queens, as they have many enemies that catch the young queens; after May there seems to be less risk.

My bees seem to be all working eagerly, although honey is not coming in very fast, but just enough to encourage brood-rearing.

Those bee-keepers that still use twine and sticks, or nails in transferring, should try the wires that I described in the Bee Journal some time ago, and I think they can do it more easily and quickly, and also more satisfactorily to themselves and the bees.

I will now describe the form of my hiving-box. When a swarm comes out, the queen's wing being clipped, she remains on the ground; I pick her up, cage her, and fasten the cage to the pole inside the hiving-box by a string or wire, holding the box in the middle of the swarm if in the air, or just over the limb or bush where they are clustering, or if clustered, just over them. They will soon find out the queen and cluster on the box; if not, I drive them with a little smoke.

I have had half a dozen swarms secured in this way, with only one box, almost as fast as they came out, and only a few on a limb. Give me a difference of 1½ minutes, or 2, at most, and I will keep them from uniting. From 6 to 12 are necessary, according to the size of the apiary. When I have a queen that I do not care to save, I use this cage to keep her in. I have kept queens in cages for 2 weeks at a time. The bees will not let her starve. At one time I kept a queen on top of a hive for several days alone; I found a half pint of bees clustered about her and feeding her. She was lively. I use wooden cages so that she cannot be chilled. I use a common starch box, the long way up and down; one side open, the other full of I-inch holes, one false end, ⅔ of the way down, for strength. The pole is 1¼ inches, and of a length to suit. I have used this for 2 years.

The Bee Journal is steadily gaining ground and influence on this coast.

Napa, Cal., July 11, 1881.

For the American Bee Journal.

How to Build Wintering Houses.

F. W. COMINGS.

In the Journal for July 6, the editor asks some one who has a successful wintering house to describe it for the benefit of D. S. Kalley, Mansfield, Ind. I built such a one last year, and put 40 colonies into it on Nov. 18. On April 16 I took out as many, minus 2 that died of starvation; we also lost one other by starvation while on its stand.

The house is 12x18 feet, and studding 10 feet. There being no cellar under it, we dug a trench about 2 feet deep, and laid a heavy stone wall in it. Our sills were 6x14 inches. We then set up a set of 2x5 inch studs, and double-boarded the outside and sided up the inside, filling the wall with sawdust. Then set up a set of 1x2 inch studs against this wall and sided up; then another set of 2x5 inch studs and sided with matched spruce, filling the second wall with sawdust. Thus we have two 5-inch stuffed walls, and an inch dead-air space between them. Overhead we put 10 inches of sawdust, and stuffed the floor, using 4 inches for that. We use 3 doors in one end, in winter, making 2 dead air spaces. Have ample ventilations in roof and floor. I have thus given you the main points, which probably will be sufficient.

East Berkshire, Vt., July 13, 1881.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept.— —National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.

Oct, 6—Union Kentucky, at Shelbyville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
11, 12—Northern Michigan, at Maple Rapids.
O. R. Goodno, Sec., Carson City, Mich.
11, 12—Northeastern Wis., at Berlin, Wis.
12—Central Ky., in Exp. B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
25, 26—Northwestern District, at Chicago, Ill.
C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.

Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.

1882.
Jan. 25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N, Y.

April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.

May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., JULY 27, 1881.

☞ Several correspondents write with pencil, and we desire to ask them to write with ink hearafter. By continuous work, writing and studying, our eyes are getting quite weak, and it tries them very much to read long articles written with pencil. Eyesight is precious, and we wish to preserve it as long as possible.

☞ We have received from the author, J. B. LaMontagne, A. M., LL. D. of Montreal, Canada, a copy of his new work, entitled: "*Le Nouveau Manuel du Cultivateur ou Culture Raisonnee des Abeilles, de la Vigne, et de la Canne a Sucre.*" It is modern in its teachings, and though the engravings are not as nice as they should be, still we are glad to welcome this Manual for French bee-keepers. Price 75 cts.

☞ E. P. Roe's Catalogue of Small Fruit and Grape Vines, for the summer and fall of 1881, is received. It is full of information on the production of small fruit. Mr. Roe's nursery is located at Cornwall-on-Hudson, New York.

☞ We hear complaints from many bee-keepers, this season, regarding difficulty in rearing and testing queens. Some complain of the cool nights as being unfavorable for the nuclei, and others have much trouble in getting queens mated. Most breeders have found it impossible to fill all orders promptly, and have been obliged to ask the forbearance of customers.

☞ The Inter-State Exposition will be held at Chicago, commencing Sept. 7, and closing Oct. 22, 1881. At the same time and place the Illinois State Horticultural Society will hold its annual fair, the premium list of which is on our desk. Prizes are offered ranging from $2 to $100 for the best exhibits of fruits, vegetables, etc.

☞ By reference to announcement in another column, it will be seen that the National Convention will meet in Lexington, Ky., on the 5th, 6th and 7th of October, 1881. We regret that a time has been selected by the Executive Committee when we will be unable to attend, but an engagement made nearly a year ago will necessitate our absence. We would, however, urge all who can possibly attend, to do so, and make the meeting as interesting as possible.

☞ The Kentucky State Convention will meet on Wednesday, Oct. 12, 1881, at Louisville, Ky., and holds 2 days. It is expected that many who attend the National Convention, at Lexington, will also attend the State, at Louisville. The prospects for an interesting Convention at Lexingtan are very flattering.

Honey is Becoming a Staple.

The Bulletin of the Apicultural Society of Alsace and Lorraine, for July, 1881, edited by Mons. Dennler, of Enzheim, near Strassbourg, Germany, has an article upon "the importation of American honey at Hamburg during the year 1880." It says that "the Hamburg *Journal* has formulated a very interesting table on the quantities of American honey that have been imported in the past four years." In astonishment it says: "*Voice ce tableau!*"—see the table!

The total amount of American honey received at Hamburg in 1877, was 1,018,000 kilos (a kilo is 2 pounds). In 1878 it was 1,529,500 kilos; and in 1880 it was swelled to the enormous amount of 1,912,500 kilos, or nearly *four millions of pounds.*

It will be seen that the amount imported last year is double the amount given for 1878.

When the National Convention of the North American Bee-Keepers' Society, in October, 1878, appointed the editor of the BEE JOURNAL to represent the Society at the Conventions and among the bee-keepers of the Old World, it elicited considerable criticism on the part of some near-sighted bee-keepers, who could see no market beyond their own limited home trade, and could recognize no right for others to engage in an enterprise which might by any possibility come in competition with themselves. But the Convention, with a wisdom for which it has not received proper credit from the bee-keepers of America, foresaw the advantages to be derived from the cultivation of closer relations with foreign bee-keepers.

In 1880, the Delegate visited most of the more prominent apiarian societies of Europe, and was received with cordiality and courtesy by all. But much prejudice was discovered to exist against American products, and especially was this the case regarding honey. In England the public had been frequently imposed upon and become disgusted with vile trash sold as "Pure Strained Honey;" while in France, Italy and Germany, it was incomprehensible how the Americans could produce such vast amounts of *apparently* superior honey, and compete with their own producers, after paying exorbitant freights.

The Delegate appreciated the immensity of the market awaiting our product, but realized the necessity for removing distrust. and wherever he went, labored with this object in view. It was not enough to assert that our honey was superior to theirs, but he was obliged to prove why it was; nor was it sufficient to claim that we could produce pure honey and meet the public demand at popular prices, but he found it best to demonstrate *how* it would be accomplished.

However, a limited few in this country looked with disfavor upon the whole movement. We copy the following from the minutes of one of the Western Conventions:

> Much discussion was had *pro* and *con* in regard to sending delegates to Europe to instruct their people to keep bees in a better way, thereby causing them to produce more honey to compete with our own honey. Some were opposed to such a course, saying it would injure our foreign honey markets; others favored it, claiming it would increase our sales, as the more honey was advertised the more it would be bought.

Another Convention had the following question for discussion:

> "Is it advisable to send delegates to foreign countries to educate their people in the advanced methods of bee-keeping, to thus enable them to more readily compete with our own bee-products, and also follow the same course in this country.

Scarcely, however, had the delegate returned home, when our market became stronger. The foreign demand was strengthened, and a healthy competition was springing up. We give the following extract from a letter received from the principal honey dealer in England:

> You might cover Europe with the most approved modern bee-keeping appliances, but you could not prolong our honey seasons. Bee-keeping here can never be pursued as a business, because our honey seasons are of no consequence; so all fears of our competitition can be discarded as absurd and ridiculous. You here rendered me great assistance in abolishing the unfair prejudice existing about that time in the minds of English consumers against American honey; in fact, it was remarked by many that the whole of your valuable time was devoted to this most important desideratum. Time which almost all visitors to this country would have spent in sight-seeing, you occupied in counteracting the many absurd stories about "stuffed honey combs" launched into this country from America. You deserve and will have great credit for your tireless efforts in that direction.

Now we have the gratifying intelligence, in German figures, that the sale of foreign honey in Germany has nearly doubled in the past four years, reaching an aggregate almost equivalent to one-eighth of the entire product of North America. But very few years can elapse before Europe will eagerly consume our whole surplus product, and seriously encroach upon the portion required for a liberal home consumption; and while the honey itself is rapidly becoming a staple production, and finding its way as such into the markets of the world, the price is as rapidly assuming a stability as is that of butter, cheese, lard, etc. A couple of years since a familiar correspondent querulously wrote, in substance, "Bee-keeping will pay, as an occupation, when honey shall have become as staple as is beeswax, for the latter is as staple as gold." We believe we have about reached that time; and it only remains for the bee-keepers themselves to maintain it as such, by producing a superior article, and selling it only at a remunerative moderate price; by exercising at least an ordinary business judgment in providing sufficient pasture for the bees, so that one season may not be a plethora and the next prove a dearth, and by cultivating a generous, fraternal spirit, remembering that the same wise Creator who placed us here and imbued us with generous as well as selfish natures, also created the balance of mankind, and endowed them with equal reason and rights.

C. F. Muth and W. Williamson are appointed a committee on arrangements for the National Convention, and they will, in due time. give railroad and hotel rates in the JOURNAL.

Encourage Progressive Apiculture.

Referring to the correspondence of Mr. J. S. Tadlock, and our comments thereupon, we have received the following communication from Pres. N. P. Allen, bearing date July 12, 1881:

> I was pleased with the editorial remarks in the BEE JOURNAL of July 6, relating to the exhibition of bees, etc., at the National Convention, It was a good suggestion, and is better calculated to bring out the "coming bee" than anything that has been done in that direction. Let every bee-keeper who possesses what he thinks to be a superior strain, send bees for exhibition—not full colonies, but a queen with workers enough to spare a few for comparison and examination. A committee can be appointed to compare size of bees, length of tongues, etc., and make decisions as to whom belongs the honor of having the "coming bee." We can undoubtedly have on exhibition fine specimens of Apis dorsata, Syrian, Cyprian and Italian bees; also, Apis Americana, Albinos, and the German or black bees can come in for their share of the honors. Hives, honey boxes and useful implements can be exhibited. No one is authorized to offer premiums for bees in the name of the Society, but the honor of having superior bees, with the longest tongues, will amply pay for all the trouble and expense of making the exhibit. After the committee makes its report, the bees and queens can be returned to the exhibitor, or donated to the Association. I shall write to the bee-keeping fraternity in Europe to take part in the exhibition.

We are glad President Allen approves the suggestion. Not only can the National Association do much to encourage the development of the "coming bee," but Local and District Societies can also assist greatly in advancing progressive apiculture. Progress is not confined alone to the coming bee, but to every part of the business that exercises a bearing upon ultimate success. In fact, the summit of progress will not have been reached until the problem has been solved of how to realize the greatest amount of profit and pleasure, from the smallest investment of capital and labor, with the least risk. Many factors will enter upon this solution, and we believe it should be a special feature of fraternal associations to determine upon and encourage the best.

☞ The *German Zeitung*, of Milwaukee, Wis., makes the following notice of our pamphlet, a German copy of which was sent at the request of the editor of the *Zeitung*. It says:

> "The Honey Bee" is the title of a valuable little work of 80 pages, intended for the beginner, and is published by Thomas G. Newman, Editor of the AMERICAN BEE JOURNAL, 974 W. Madison street, Chicago. It contains everything that is interesting to beginners; it leads off with a short natural history of the bee, and then describes the management of the same, and it also details all new inventions pertaining to bee-keeping. This book is embellished with 56 engravings, and costs but 40 cents. It may be had of the publisher, both in German and English.

☞ We have received the Premium List of the Kansas State Fair Association, to be held at Topeka, Kan., Sep. 12 to 17, 1881. We notice that $18 and 7 diplomas are offered for bee-fixtures and honey. Mr. George Y. Johnson, Topeka, Kan., is the Secretary, who will send a copy of the Premium List upon application.

To European Bee-Keepers.

The following letter from President Allen, sufficiently explains itself:

Editor Bee Journal:—Allow me through your columns to extend the following fraternal invitation to the bee-keepers of the Old World, with a request that all bee periodicals copy the same:

To the Bee-Keepers of England, France, Germany, Italy, and elsewhere, greeting:

The time is fast approaching when the North American Bee-Keepers' Society will convene at Lexington, Ky. An exhibition of bees, queens, hives, honey boxes, implements, etc., will be one of the features during the session of the Convention. We invite you to participate in the exhibit. No gold medals or money premiums are offered, but awards will be made by a committee. All exhibits you may send will be properly attended to. We cordially invite you to be present, and take part in the discussions. Essays upon any topic in bee-culture will be highly appreciated.

Articles may be forwarded, charges prepaid, to Wm. Williamson, Lexington, Ky., Vice President for Kentucky. Hoping to meet many of our European friends, I am fraternally yours,

N. P. Allen,
Pres. N. A. B. K. Society.
Smith's Grove, Ky., July 12, 1881.

* * *

☞ In noticing the reception of the Indiana State Fair Premium List, we stated that we only found a premium of $5 for comb honey, in 5-pound boxes. The *Indiana Farmer* calls attention to some other premiums, on page 27 of the pamphlet. We there find the following premiums, and gladly make a note of them: "Best 10 pounds of comb honey in packages of one pound or more, $5—second $2; best 10 pounds, or more, one-pound packages of extracted honey, $5—second $2; best crate of honey in the comb, in the most marketable shape, $6; best display of honey, both comb and extracted, $5; best display of wax, $2; best machine for extracting honey, diploma; best display of bee-keepers' supplies, diploma."

The *Prairie Farmer* also adds: "Our Honorable Board of Agriculture deemed it best to leave the bees out of the list until a greater interest was shown in this department. We are sure they are willing and anxious to do all in their power to assist any and all departments in which any interest is shown."

* * *

Getting Used to Glucose.—The *Western Rural* remarks that "A writer in a certain paper says that apiarists must get used to seeing glucose honey in the market. They are used to it, but do not propose to stand it if they can help it." And the Bee Journal would add that apiarists "can help it," and do not propose even to try to "get used to it!" It is a nefarious *swindle* to use the trash for the purposes of adulteration, and bee-keepers will fight it to the "bitter end."

* * *

Complimentary.—The New Sharon (Iowa) *Star*, makes mention of the Bee Journal thus:

It is the standard authority in its particular line, and ought to be in the homes of every individual who is engaged in bee-culture. You have only to send $2 to Thomas G. Newman, of Chicago, and you will receive one of the handsomest weeklies published in this country.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Dividing for Increase.—Mr. Geo. M. Hawley, in the *Nebraska Farmer*, says:

All who have kept bees have seen swarms coming from the hives, rushing or tumbling out, or any way to get out, the queen coming after most of the bees have left the hive. After circling around for some time they alight on some tree, shrub or prominent object near the hive, waiting for their master to provide a shelter. After which, if it is acceptable, they go to work with a good will, in kind appreciation of his attention, and if nature is lavish in her stores of sweetness, they will abundantly pay him for services rendered. If he be negligent, however, and allows them to hang long in the cluster, uncared for, they "take matters into their own hands," and send out scouts in search of a suitable abode, to which, when found, they go. This is nature's plan of increase.

That "dividing" the colonies can be done by the careful and intelligent apiarist with equal if not better results than nature performs it, there is no doubt; but that as good results are not obtained by the majority, speaks rather against the apiarists than the system. If we observe closely we will see that bees make preparations for swarming only when they are gathering honey, and the hive is crowded with bees. They start the queen from the egg, not taking larvæ of several days' growth around which to form their queen cell, as is usually the case when accidentally or intentionally deprived of their queen. Therefore, the queen is fully developed, being reared while they were gathering honey. The queen was made much larger, and the larvæ much better supplied with food than if reared at other times.

Having seen the demands of nature we can now imitate her and by careful selection in the colonies from which to rear our queen, can make improvement much faster than if they were left unaided. If we deprive a colony of their queen, and they have brood in their hive, they will form from 5 to 20 or more queen cells of larvæ, and by a greater amount of food develop those that would have hatched worker bees into queens. In other words, a worker is an undeveloped female, by growing her in a queen cell, and furnishing her with more food she will be fully developed.

We have already seen that queens are raised naturally, during a flow of honey. If, then, we wish to rear them at any other time, the colony should be fed. Also to secure her fullest development, she should be started from an egg and not after the egg has hatched. Therefore, all brood should be taken away, and combs of new-laid eggs put in their place. Queens are so hostile to one another, that as soon as one hatches, if not taken away, she will destroy all the others. If it is desired to save the queen cells, nucleus colonies of one or more combs of brood and bees, taken from strong colonies, should be put in hives constructed with a division board; on the ninth day, all the queen cells but one should be cut out, putting a cell in each of the nuclei. After the queens have hatched and commence to lay, the nucleus colony can be built up by giving it frames of brood from the stronger colonies, putting empty frames, or frames with comb foundation, in their places.

* * *

Work for August.—In the American *Agriculturist* Mr. L. C. Root says:

During the month of August take care not to add too many boxes, or to extract too freely, in localities where fall forage is scarce. I would advise every bee-keeper to leave a few hives without extracting all of the combs. In fact, where boxing is practical, it is well to arrange a few hives with extra combs to be filled and capped over.

I have frequently known seasons in which the brood combs were so entirely filled with brood that all the honey was stored in boxes; then the yield of honey closing abruptly, but little or no honey was stored for winter. At such times it is most desirable to have heavy cards of sealed honey that may be furnished to such colonies. In a word, we should not be so eager to secure a great surplus as to run the risk of starving our bees, which is sure to be the result of improper management.

The Danger of Procrastination.—Mrs. L. Harrison gives the following good advice on this subject in the *Prairie Farmer*:

The late Prince Napoleon lost his life by his habit of procrastination. It had always been his habit from earliest childhood to plead for a delay of 10 minutes, when requested to perform some duty, such as retiring to bed or arising in the morning, and it became fixed—as it were a part of his being. When his command desired to return to camp, his characteristic reply was: "No, let's wait 10 minutes;" and at the expiration of this time the Zulus came. Do every duty as soon as it can be done, is the only road that leads to success in temporal and moral affairs.

A few days ago, while visiting at a farm house, we noticed a colony of bees, that were clustering on the outside of the hive for want of room inside, and on our remarking to their owner, that he should give them more space, by putting on surplus boxes, his reply was: "I'm going to do so as soon as I get my corn planted." As he had but one colony, it would not have taken him much more time to have laid back the duck, and put on a box, than to have said so. Those persons who wait to plant, and work their corn, sow buckwheat, etc., before supplying their bees with surplus boxes, will find in the fall that they have no honey for their cakes. The proper date for supplying boxes varies with the climate, strength of colonies, and yield of honey. Inexperienced persons are apt to put on boxes too soon, and too many at a time. If too much space is given it cools the hive too much, and bees cannot manipulate their wax. A person, to be a successful apiarist, should become familiar with the habits of these industrious insects, and then use his judgment in their management. A farmer told us recently that during fruit bloom his bees built comb in the porticos of their hives, and he thought that they would swarm sooner if he did not put on boxes. In this locality bees sometimes store in boxes during fruit bloom, but it is rare, but if they have been well managed, they are ready to go to work in them at the commencement of white clover bloom. Care should be exercised to secure all the white honey attainable, and in the best marketable shape.

* * *

Bee-Keeping in the South.—Mr. A. F. Moon, Rome, Ga., reports as follows in *Our Home and Science Gossip*:

Some apiaries have, with little care, yielded 100 pounds to the colony on an average, the present season, and where there has been care, little swarming has resulted. There is no cold weather here, and the bees fly almost every day during the winter, but where this freedom is allowed them they consume more honey than when properly housed. They are, however, more healthy and vigorous when privileged to fly, than when confined to their domiciles.

* * *

Bees Hanging Outside the Hive.—The *Home Farmer* remarks as follows on this subject:

The next care that comes after swarming is the honey harvest. In view of this it is always advisable to give additional room at the top of the hive, and sometimes even below the hive when the season happens to be exceedingly good. The bees will often fill a cap (or super) of beautiful honeycomb before they swarm. Therefore be on the look-out, and when the season is good, the weather fine, and the bees show signs of want of room by hanging ever so little outside of the hive entrance, lose no time. Open the hole at the top and let them into the super. You must cover this well over, so as both to keep in the warmth and to protect them from a too hot sun as from wet. If their numbers still increase, and they hang out again before swarming, they must have yet more room given to them; for bees should never be allowed to remain idle; many pounds of honey are often lost to the bee-keeper in this way.

* * *

Beautiful Honey.—The *Grange Bulletin*, of Cincinnati, O., very truthfully remarks as follows:

Extracted honey is certainly the perfection of the product, though honey in the comb as yet brings the higher price. People say because it is more beautiful to the eye, but this cannot be true. Served in a stand of crystal, extracted or clear honey, golden in color and as transparent as the crystal itself, what object is more beautiful upon a well-appointed tea-table?

* * *

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—But little comb honey is yet upon the market, and the quotations are rather premature. New extracted honey is quite plentiful, and in good demand.

We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 7@9c.

BEESWAX—Prime quality, 18@20c.

NEW YORK.

HONEY—New honey in 1 or 2 lb. boxes will bring good prices, but as yet there is none on the market, though it is daily expected.

White extracted, 9@10c.; dark, 7@8c.

BEESWAX.—Prime quality, 18@22c.

CINCINNATI.

HONEY.—A few small lots of comb honey have made their appearance on our market, which I bought at 14@15c. per lb. I have very many offers, but there being no demand yet, I have not commenced to lay in my supply. Extracted honey ranges from 7@9c., on arrival.

BEESWAX—18@22c. C. F. Muth.

SAN FRANCISCO.

HONEY—A small amount of new extracted is on the market, held at 9c. For choice old the above is now the bottom price with holders. There is a fair inquiry. Several sales have been effected within the week.

We quote white comb, 13@15c.; dark to good, 10@12c. Extracted, choice to extra white, 9@10c.; dark and candied, 8c. BEESWAX—23@25c.

Stearns & Smith, 423 Front Street.
San Francisco, Cal., July 16, 1881.

* * *

☞ The time selected by the Executive Committee for holding the National Convention, at Lexington, Ky., is October 5, 6, and 7, 1881. All bee-keepers are invited to attend and take part in the deliberations of the Convention. As Lexington is a central point, the Executive Committee hope to have a large attendance from the the North, South, East and West, and from Canada, and that the 12th annual meeting of the North American Bee-Keepers' Society will be the most interesting meeting that the bee-keepers of the United States have ever held.

The National Convention will be held during the time of holding the St. Louis Fair and the Expositions at Cincinnati and Louisville, and that all passing through those cities can get the benefit of excursion rates.

N. P. Allen, *Pres.*

* * *

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. Miller, M. D., *Pres.*
C. C. Coffinberry, *Sec.*

* * *

☞ The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting Aug. 30, at Rock City, Stephenson Co., Ill. Jonathan Stewart, *Sec.*

* * *

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. Goodno. *Sec.*

* * *

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.
N. E. France, *Sec.*, Platteville, Wis.

SELECTIONS FROM OUR LETTER BOX

Bees Doing Well.—Bees here are doing well, gathering honey steadily from swamp woodbine and button willow. We shall have bitter-weed during August, and after that a variety of fall flowers.

OSCAR F. BLEDSOE.
Grenada, Miss., July 18, 1881.

The Honey Harvest.—The summer yield will be but ¼ crop, at most; basswood is a total failure, and white clover not much better. Bees are plenty in the hives, hang idly about, with no honey to gather. I do not expect much of a fall harvest, and that will be of a second quality. There will be no surplus to speak of in this immediate vicinity, though bees will be in good condition for winter.

C. B. WOODMAN.
Johnson's Creek, Wis., July 17, 1881.

Regained the Loss of Last Winter.—My bees are doing well. I have filled all my hives again, and they are now in good condition for another year. I like the Weekly BEE JOURNAL much, but I am glad you are to change the size of the page next year. Put me down for a life subscriber. I live 10 miles from Louisville, the only place I can get a letter registered, and sometimes I do not go to that city for 3 or 4 weeks, but I will pay up regularly, and all the time, so do not stop sending it at all.

WILLIAM BENCE.
Newburg, Ky., July 15, 1881.

[With pleasure we have marked your JOURNAL to come "without ceasing." All we want to know is that it is desired. We prefer to send it thus, and hope all who desire its continuous visits will notify us, and thus save us, as well as themselves, much trouble and annoyance.—ED.]

Good Square Work.—I never saw bees work as they are doing this summer. Most of the bee-keepers of Kane county lost their bees last winter. The entire loss amounted to 1,500 colonies, at least. There never was such destruction known here before. I had enough bees left for seed.

GEO. THOMPSON.
Geneva, Ill., July 15, 1881.

Ventilating a Cellar.—My bees are doing well. I had only 2 colonies alive in the spring; they increased to 8 and gave me considerable surplus honey. I made a room in the cellar for wintering bees, immediately under a coal stove, where the atmosphere will be regularly at about 45°. I have a 2-inch tin pipe to bring in air, facing the west, running 20 feet through the cellar before entering the bee room. On the east I have a pipe 4 inches to conduct the air out through a window. Will a 2-inch pipe give enough fresh air? The room is 10 feet square, by 7 feet high, and kept from the stone wall on all sides; the floor is also raised from the ground.

D. LANTZ.
Forreston, Ill., July 19, 1881.

[A 2-inch pipe should give sufficient ventilation. It is ½ an inch more than used by several who ventilate in a similar manner.—ED.]

Bees Doing Nothing Now. — Bees have been doing nothing for about 3 weeks. Previous to that they did well, as far as swarming is concerned; they have killed off the drones already. What the fall harvest will be, I know not. Basswood was in bloom but a few days. About ⅓ of of the bees winter-killed. The weather is very hot.

PETER BILLING.
Pawnee City, Neb., July 16. 1881.

Queries from Georgia.—Bees in this latitude have done well this season. Last year I had 33 colonies, and in the spring 15 died from starvation; I now have 34; from one I obtained 40 lbs. of honey and 2 large swarms. I have but one colony of black bees, and it gave a swarm of as fine Italians as I have. How came that to be the case? All the bees have three yellow bands, and are as fine as those from my imported queen. I can only account for it in this way: I had some young queens about ready to take their bridal trips, and one of them was missing; it may have gone to the swarm while they were settling. I had a swarm come out which I hived, but the queen would not stay in the hive, so I clipped her wing, and in the evening they came out again. I looked in the yard and found the queen with the clipped wing dead. I hived them again, and found another queen. They remained all right, and are doing well. This may not be new to old bee men, but I never had a like case before. I have one colony, the bees of which during the late extremely hot weather, would come out and fall from the bench, and have the ground covered with bees that could not fly. The colony has a large quantity of honey. What was the cause of their falling to the ground? How late would it be safe to extract in this country? I have just received my extractor, but am fearful it is too late to extract much. I read the BEE JOURNAL with pleasure, and would not be without it for double its cost.

H. M. WILLIAMS, M. D.
Bowdon, Ga.

[You have undoubtedly solved the problem regarding the metamorphosis of your black bees into Italians. It is not unusual for two swarms to emerge simultaneously, and, of course, one of the queens would have to desert the new hive, or perish in combat. In the case of the bees coming out of the hive and dying on the ground, it would be difficult to state definitely the cause without a critical examination of the interior of the hive; but we presume the heat softened the brood combs so that the cells were more or less distorted by the constant passing to and fro of the worker bees upon their surface, and as a consequence the young bees were deformed, and sought to die in exile. So long as there is a continued prospect of honey, it will do to extract. In your latitude, too close extracting is not necessarily fatal, as it might be here, for the Georgia winters are never so severe and protracted that there is not ample opportunity for feeding. It is, however, quite as necessary that bees in the South should have plenty of stores provided for them as in the extreme North, for often more or less breeding is going on through the winter, which consumes honey rapidly. It is not an uncommon occurrence, in the South, for bees to breed up, consume their stores, and starve before the spring honey flow sets in.—ED.]

Size of the Langstroth Hive.—DEAR EDITOR: Did you not make a mistake in giving the size of the Langstroth hive in the BEE JOURNAL for July 6, page 213? I ordered a Langstroth hive, and received one 18⅜x14⅛x9⅞. Frame, when adjusted in the hive, was ⅜ from the top and ⅞ at each end. I am aware that there are hives made which are claimed to be Langstroth hives, and nearly every one makes them of a little different size. I wish hive manufacturers would be more careful about sizes, and not guess at it so much; it would be much better for all of us, should we have occasion to exchange hives with our neighbors. I received rather a flattering report this morning for the box-hive men. It was from one of our "street-corner-hard-working-men," who has been foremost in all undertakings through life, but from appearance has met with misfortune, or he must have been a Stewart or Rothschild. Said he: "I have handled bees for over 50 years; I know all about them. The great trouble is, you do not give them room enough to build their combs; you want at least 1¾ inches for each frame—2 inches is better. Then, this transferring is all wrong; let them have their own way about building their combs. Why," said he, "I once lived down on the river bottom and had one *stand* of bees; they swarmed 14 times one season; when the last swarm came out of that hive I had nothing to put them in but a flour barrel, and so I put them in that, quite late in August. They filled that barrel full of solid white comb honey, and not a particle of brood or bee-bread in the barrel; nothing but clear honey. We sold $26 worth of honey from that barrel, and had lots left—over 300 lbs." If this is all true, I think that we had better go back to boxes and barrels.

Urbana, Ill. S. GOODRICH.

[There was a typographical error in the dimensions of the Langstroth hive, as published in the BEE JOURNAL for July 6; it should have read 9⅞ instead of 10⅞ inches in depth. The hive you purchased is correct. It would be a very important movement, if bee-keepers could determine which is the best hive, and rigidly and scrupulously adhere to the same dimensions; then one of the serious drawbacks to a free interchange of hives, frames and bees will have been overcome.—ED.]

Foul Brood, Honey Crop, etc.—Foul brood may be carried in foundation made of wax taken from foul-broody hives. A friend of mine, in this valley, with about 60 colonies, found so many of them with foul brood early in the spring, that he transferred them into new hives and boiled the old ones. He made new frames, taking a great deal of pains not to let the bees get any of the honey, but made up the wax into foundation, and after they got well filled with brood he found it worse than at first in every colony. He is satisfied that it was carried in the wax. I commenced in the spring with 75 colonies; kept them well snugged up, examining them as often as once a week, and took the old honey away from all that were honey-bound, to give the queens a chance, as they were bringing in more than needed, which is unusual here in February and March. By attending closely to them they gave me, in March and April, 45 pounds of wax, and 3,170 pounds of extracted honey. I increased to 96, with honey enough to last them through. I doubt there being any more honey in this State than we need.

S. S. BUTLER, M. D.
Los Gatos, Cal., July 14, 1881.

[There is not a possibility of foul brood being contracted by using foundation made from foul-broody combs. It is sheer nonsense, to say the least, to suppose that the infection was eradicated when your friend "boiled the old hives," yet would linger in the foundation after the several boiling processes necessary to transform the comb into a perfect sheet.—ED.]

Not Mated.—I herewith send you a young unfertilized queen. I take her to be about half-way between a worker bee and a queen—not sufficiently developed to mate with a drone. I have been watching her for three weeks; she seems to have no inclination to leave the hive to meet a drone. She is a good layer, but, like the fertile worker, locates eggs all through the hive; yet she is easily distinguished from the worker bees. I think she might be called a fertile worker; what do you think of her?

JAMES T. FIFE.
Corning, Iowa, July 17, 1881.

[We think that, excepting her diminutive size, she is a perfect queen. Either unpropitious weather, absence of drones, or other circumstances prevented her mating at the proper time, after which she became what is called a drone-layer, and lost all desire to leave the hive.—ED.]

How to Winter Bees.—I lost 24 colonies of bees last winter and spring, by dysentery. They were in an underground house, well ventilated, as I thought, but they became damp, and I could not prevent it. Wintering appears to be the great problem, the solution of which is necessary to success in apiculture, and I greatly desire to have the views of the editor of the BEE JOURNAL on the subject. Which is better, a winter depository above or below the ground? Will it do for the hives to be placed in rows, with a shed built over them and on one side, leaving entrances open, as recommended by some? Different localities require varied kinds of preparation, and there are so many things to be considered that I find myself in a quandary. As with all other avocations, with all the teachings and experiences of others, nothing is so sure of success as good brains well used.

G. B. OLNEY.
Atlantic, Iowa.

[Our views have been given several times of late, on wintering, and on the fourth page of the JOURNAL for last week we gave statistics on last winter's losses, and "our views" upon them. Next week we shall give a long article from Mr. Ch. Dadant, on the same subject—all of these we commend to the careful study of our correspondent, as an answer to his queries.—ED.]

The Honey Season in Texas.—Our spring honey season being over, I now send you my report to June 20. I wintered without any loss, including several 2-frame nuclei. I commenced in the spring with 7 colonies; up to June 20 I took 968 pounds of surplus honey and increased to 20 good colonies. Continued dry weather cut the honey season fully 2 weeks short. I think our fall honey will compare favorably with any in the world, both in appearance and delicacy of flavor—most of our spring honey being nearly white. Bees are now gathering honey dew from oak and elm, to a limited extent, but the quality is very poor, and the color is dark. I am glad to see it coming in, anyhow, for it keeps up brood-rearing, and makes it favorable for rearing queens.

JAS. G. TAYLOR.
Austin, Tex., July 11, 1881.

Brushing off the Bees. — I commenced this season with 22 colonies and have increased to 75, mostly by natural swarming. I extracted 600 pounds of white clover honey, and have 25 colonies working in the section-boxes. Basswood is just commencing to bloom. Is there any danger of losing queens, when brushing off the bees in front of the hive, if she should happen to be in the second story when extracting, or should I look for her?

EMIL PETERMAN.
Oostburg, Wis., July 12, 1881.

[You should look at every comb taken out, whether you want the queen or not. She is frequently in the second story.—ED.]

Heavy Crop of Honey.—Bees are now doing their "level best" on gathering honey. Another week or two like the past one will secure for us a heavy crop of honey.

GREINER BROTHERS.
Naples, N. Y., July 20, 1881.

SPECIAL NOTICES.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

◆

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

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☞ When changing a postoffice address, mention the *old* as well as the new address.

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Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

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Because it adds to Personal Beauty by restoring color and lustre to gray or faded hair, and is beneficial to the scalp, is why Parker's Hair Balsam is such a popular dressing. 27w4

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Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

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It is a Foolish Mistake to confound a remedy of merit with the quack medicines now so common. We have used Parker's Ginger Tonic with the happiest results for Rheumatism and Dyspepsia, and when worn out by overwork, and know it to be a sterling health restorative.—*Times.* See adv. 27w4

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and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
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974 West Madison Street., **Chicago, Ill.**

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Bingham Smoker Corner.

Oxford, O., June 29, 1881.

Messrs. Bingham & Hetherington, Abronia, Mich.
Gentlemen: Your uncapping knife has been well tested in the Apiary of Mr. D. McCord, my neighbor. In his opinion (and I agree with him) it is far in advance of any knife which he has ever used.
Yours very truly, L. L. LANGSTROTH.

Sunny Side, Napa, California, June 10, 1881.

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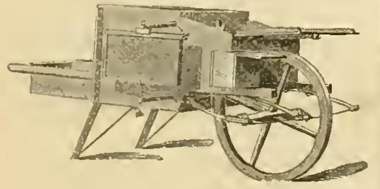
27w4



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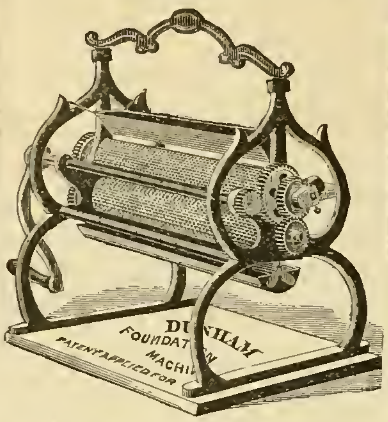

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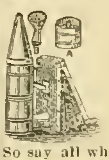

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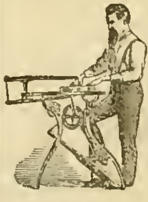

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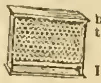

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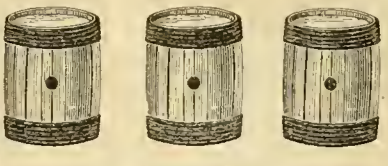

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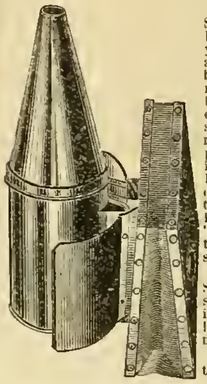

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THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., AUGUST 3, 1881. No. 31.

THE AMERICAN BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,

EDITOR AND PROPRIETOR,

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CORRESPONDENCE.

An Assistant for the Apiary.

Knowing that our readers desire to be informed of all the "new things" intended for the apiary, we give on this page an engraving of "Davis' Honey Carriage, Revolving Comb Hanger and Recording Desk, Combined." The engraving is very plain, but in order to give the many uses for which it is intended, we have requested Mr. Davis to describe them, which he has done, as follows:

This invention is the outgrowth of years of hard labor in the apiary, and is gotten up entirely from practical experience.

1. It consists of a honey-safe, supplied with corrugated adjustable honey frame supports, so arranged as to hold the combs perpendicularly, and prevents them from coming in contact with each other, and thereby being bruised.

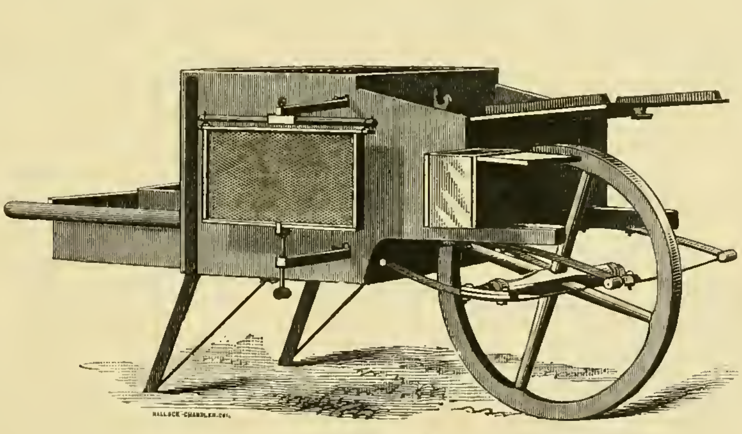
2. Forward from the honey-safe, over and on each side of the wheel, is a tool-box, large enough to carry all the tools, fuel for smoker, queen cages, clamps, etc., required while working in the apiary.

3. The top of this tool-box is shingled, so that when turned forward over the wheel, it rests on an adjustable support, and forms a strong and convenient writing-desk.

4. Hinged on the forward right hand corner, is a wash basin, convenient for cleansing the hands and tools of honey, etc., while in the apiary.

5. A revolving comb-hanger is suspended by a thumb screw and swivel from the end of a lever, which can be drawn from the right side of the honey-safe, and a frame of comb suspended and revolved for inspection. If found to need pruning, or if queen cells are to be cut, the revolving bar can be firmly secured in any position by turning the thumb screw; and a second lever drawn from the honey-safe, directly under the first one, and below the bottom of honey frame; through the end of this an adjustable rod passes, with a revolving stirrup on the upper end, which straddles the bottom bar of the comb-frame, which is held as firmly as if held by both ends by an assistant, and the operator can proceed to prune or cut out queen cells, having free use of both hands. When not in use, these levers can be pushed back into the body of the safe, and are entirely out of the way.

6. The honey safe is furnished with a metal-dripping drawer to catch the honey that may leak from the combs; this slides out on the handles: beneath this is a 20x24 inch metal-lined drawer, 4 inches deep, which slides out and is suspended by the handles, forming a convenient place in which to put broken combs and fragments of wax.


HALLOCK-CHANDLER-CHI.

Honey Carriage designed by John M. Davis, Spring Hill, Tenn.

The top of the honey-safe stands about as high as an ordinary Langstroth hive, and requires no stooping to transfer honey from a hive to the carriage. By placing a strong board in the bottom of the dripping-pan, crates and boxes of honey can be wheeled from the apiary to the honey-room, without fear of damaging the comb.

The most convenient cover is cloth, with a roller at each side, and is rolled back, the same as the enameled-cloth honey-board, when bees are troublesome; during a good yield of honey, when the bees are not disposed to rob, it is useless to use the cover. The engraving represents the drawers partially drawn out: a frame of comb in the revolving hanger and the tool-box and wash basin open.

For the American Bee Journal.

How I Wintered My Bees.

WM. BOLLING.

It now seems that the cellar carries the premium on wintering, being most successful, but all bee-keepers cannot have a good cellar or a good bee-house; I have not, and so I have to do the best I can on the summer stands, and that is, by my experience, a good chaff hive. I know of none better than the Quinby, with the tight-end frame. It also makes a great difference as to the manner of using the chaff; if packed too tight it will not permit the moisture to pass off sufficiently, and if too loose, it will not retain warmth enough.

I began packing bees last October, in the following manner: I removed the division-boards on each side of the brood-nest, and in their places I put a frame, made of lath, ½ inch higher than the combs; in these frames I tack old carpet (ingrain carpet is the best), then I take the division-board and put it on the carpet-frame in such a way as to leave a ½-inch air-space between the two; then I put 5 or 6 pieces of lath across the brood-nest (from which I have taken the honey-board), resting with each end upon the end of the carpet-frame; over these pieces of lath I put a piece of ingrain carpet, and then have a space of one inch all over the brood-nest. I find the bees in the spring dry and warm, and holes made through the combs for winter passages are unnecessary. Then I fill the remainder of the hive, 6 inches on each side and 6 inches on the top, with chaff of any kind. I have now a space left of 6 inches to the peak of the cap, which remains empty. A one-inch auger hole in each gable end gives sufficient ventilation of air. These auger holes are opened or closed, according to the weather.

When winter commences in earnest I open the entrance, which is ⅜ by 5 inch, its whole length, and put a little box, that fits close over the entrance, with a tube 10 inches long made of sumac. I call this box a storm-house. This storm-house is of great advantage to the bee-keeper; the entrance will not get filled with dead bees, as the bees will carry the most of the dead ones in this store house. It keeps the mice out, nor will the entrance become closed with ice and snow, and the bottom-board will keep perfectly dry. By this way of packing I have lost but 3 out of 37 colonies by actual death; 2 of them in box hives, and one in the American; 2 queenless colonies and 2 weak, old queens being the cause. My bees have no hill or wood protection; they stand upon the very bank of the big Canadaway Creek, and had to take the full force of every blizzard that came across lake Erie. I am the only one in this section of the country who has wintered bees with success on the summer stands.

To my close attention to bee-keeping, and study of the BEE JOURNAL, I attribute my success in wintering bees. I not only read the JOURNAL, but I study it. I thank you very much that you will enlarge the JOURNAL for the next year, and give it a more convenient shape.

Dunkirk, N. Y., June 21, 1881.

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For the American Bee Journal.

How to Rear the Best Bees.

S. S. BUTLER, M. D.

The great question is how to rear bees that will winter almost any where and almost in any way—bees that will ever be a satisfaction, instead of a disapointment. In the first place I want them of the yellow race, as they are decidedly superior, and from some locality where there had never been any forced queens raised, and after getting such stock thoroughly tested in regard to their working qualities.

My favorite way is to let them take their own course in the spring (keeping them well snugged up), and rear my queens and drones from those that build up first, as they will certainly prove superior in every respect. My experience has been that those that work best in the fall prove to be best in the spring. After making up my mind which I desire to breed from, I contract their hives, giving them, every few days, brood just hatching out, taking eggs and larvæ from them, and thus getting the hives quickly filled with bees so as to have them swarm out, and have the cells ready by the time the strongest of those I am not rearing queens from are getting ready to swarm.

After they are out, the best way is Mr. Doolittle's plan of finding the clipped queen, and putting her in an empty hive on the old stand, moving the old hive but a short distance, so that they may be united again, if desired. Then select the queen cells after the colony is quietly settled on the old stand, open the old hive, and I usually find from 5 to 8 cells, either sealed or the larvæ nearly grown, which shows that they are about ready to be sealed. Mark all such, and also the number of them on the outside of the hive. If you want to raise a great many queens, divide one of your largest colonies, and after 2 days put the sealed cells in the queenless part, destroying the ones they have made, then put the best queen and bees together again, and crowd her with bees, and in a short time they will swarm out again. By working in that way you can rear a quantity of superior queens from the best ones; make nuclei 2 days before putting in the choice cells, and you will not have them torn down as they often are after 24 hours. I have never lost one yet.

Those who want to rear the *best queens* should remember this: Never, under any circumstances, keep any cells but those I have described. You may ask: Why not keep all of them? Because some of the queens reared after they have swarmed will be started on larvæ, and they will start more cells than they can take thorough care of, as they do of those made before swarming. I have repeatedly tried both, and the cells made after swarming were not as fine as those reared before, and the queens did not give as vigorous and industrious workers. They are *not* the best queens.

We may just as well have all vigorous, strong, healthy colonies that will bring in good returns. As it is, many keep nearly double the amount they need, because so many are poor ones, bringing in nothing. The main reason why there are so many poor colonies is, I doubt not, the large amount of imperfect workers that the bees worry to death, as they do the drones at the same time, amounting, in some colonies, to fully ½ of the workers. You will not find such where your best queens are. If you find a colony that is superseding their queen, give them a good cell in the place of theirs, or if out of season, and you want to save the colony, mark it and give them a good queen in the spring. Do the same by any colony, which from any cause rears a forced queen. It is impossible to rear queens, all of which will give us workers that are equally vigorous and long-lived. Some queens excel others in this respect. Of a frame of bees all hatched the same day, a few of them will live for days longer than the great mass, showing that some of the eggs are more highly vitalized than others.

In rearing a quantity of queens, we will find a few whose workers will show a marked superiority over all the others. Such queens are no doubt from those more-vitalized eggs. By taking all these precautions, it is possible for us to rear queens and drones from the best ones, and we are improving our stock instead of having to keep it up by fresh importations. In this way we may soon have bees superior to any imported ones.

Los Gatos, Cal., July 5th, 1881.

From the Farmer's Home Journal.

Good Advice for Beginners.

G. W. DEMAREE.

"What advice would you give a beginner in bee culture?" I propose to devote this short article to the answering of this question. It can readily be seen that in order to make the answer satisfactory to all who may be interested in the culture of the honey bee, would be necessary for me to be informed of the intentions and purposes of the beginners, so that I might be able to make a proper application of such advice as I am able to offer. Some of us keep bees solely for the profits to be derived from the business; others simply for the purpose of supplying their tables with the most delicious of sweets; while there are another class who keep bees principally to gratify their love for the study of their marvelous habits and natural history. To the charge of belonging to latter class I plead guilty; though I have learned to try to make my bees pay, as well as to gratify my inclinations to pry into their matchless ways.

The first advice I should offer would be "make haste slowly" at the start. Commence with a few colonies. One of these, at least, should have a pure Italian queen, and the combs in the hive occupied by her should be straight and nice. Get a copy of Professor Cook's Manual of the Apiary. I recommend this work, not because there are not other good works on the subject, but because Cook's Manual is not only a practical but a scientific work as well. Subscribe for a bee paper, and let that paper be the AMERICAN BEE JOURNAL. If you can't afford to take but one, let it be the best one. With this small outfit you can make a start. Read up the subject, learn to handle your bees frequently, especially your fine gentle colony, at the start; lift out the frames and learn to "hunt up" the queen; show her to your friends and neighbors when they come to see you. Always keep a good bellows bee-smoker at your side. Never let your bees "boss" you; avoid, however, the mistake so common with the inexperienced—deluging the bees with smoke. Just give a little smoke when they appear to rebel—just enough to keep them quiet.

If a bee is pinched by you and stings you on the hand, remove the sting with your thumb nail and suck the place between the lips, and don't halloo "Ouch!" like an idiot, or be so reckless as to thrust the same hand back among the bees immediately. The odor of the poison will be sure to be taken as a signal for the fray, and you will get more stings. A bee sting is really nothing when one has just a little philosophy in his composition. I have a supreme contempt for the awful dread which most people seem to delight to nurse and exhibit on all occasions, when they hear the gentle hum of the busy bee. I have seen educated (?) men, men sleek with knowledge (?) bending under professional cards and responsibilities, strike with terrible energy at an inoffensive, tired bee which, by chance, attempted in its innocence to make a resting place on the person of this wise (?) man.

After the beginner has learned to distinguish one from the other—the worker cells, drone cells and queen cells—and is able to trace the history of the bee from the egg to the perfectly developed bee, he can begin to rear some queens, practice artificial swarming, introduce queens; in short, make his bees subservient to his will.

For the American Bee Journal.

Fertilization in Confinement, etc.

REV. L. L. LANGSTROTH.

I have been engaged in a series of experiments on fertilization in confinement, the results of which, if they had proven favorable, I intended to send to the BEE JOURNAL. The extreme heat has been against them, but I am afraid that we shall find nothing reliable where the queens are not allowed to fly at their will.

With great regret I notice the poor success which Mr. Benton has had in his efforts to secure *Apis dorsata*. I have always hoped more from a cross between this bee and some of our best varieties than from the pure *dorsata*; and wish that Mr. Benton had been able, when in its vicinity, to test the feasibility of getting such a cross. A few nuclei with virgin queens might have given us the desired cross. As the Cyprian bees have been introduced into Ceylon, thanks to Messrs. Jones and Benton, it will now be a comparatively easy matter to see whether the wild *dorsata* drones will mate with Cyprian queens. Mr. Benton's researches have shown some strong points in its favor; and that its ferocity is by no means to be dreaded.

I thank you for your kind notice of my remarks on grape sugar and glucose. When we have proof that these articles can be made pure and are sold at prices which will lower the cost of our commercial sweets, and when sold under their own names they are sought by the general public, then may those who manufacture them claim to be engaged in a legitimate business.

Oxford, O.

London Journal of Horticulture.

Alteration of Sex in Eggs.

A. PETTIGREW.

What more unlikely and wonderful than this? What harder to believe than the statement of fact that all the eggs of queen bees are naturally and originally male, many of which are changed and become female in character in passing down the bodies of the queens? In the history of bees many wonderful points strike the thoughtful students. One of these is the well-established fact that all eggs in their origin are male and convertible into the opposite sex. For nearly 40 years I believed that all eggs laid by queen bees were alike, and convertible by after treatment into queens, drones, and workers. By a fair and satisfactory experiment made in my own garden I found that this was a mistake; that the notion was altogether wrong; and the eggs as they fall from queens are either male or female and remain unchangeable in that respect, but the eggs which are "femalised" in character before they are laid are convertible into either queens or workers by after treatment in their cells. It has been long known that eggs meant for workers are 21 days in hatching, and which may be placed in royal cells by the bees and hatched as queens in 14 days. Though the mystery of this change or transformation in the cells is great it is not a change of sex, for both queens and workers are female, the one perfect or fully developed, the other imperfect; but whether the special after treatment is applied to eggs in royal cells or to those in worker cells is an unsettled question. If the special treatment be given solely to royal cells, if the inmates are royally fed, we have some reason to believe that the treatment is meant to develop and perfect young queens in every respect. If the special treatment is applied to the eggs in worker cells it will go so far to prove that it tends to dwarf the insects and interferes with their development. The whole of this interesting subject is clouded in mystery. Everywhere we have evidence of design and wise arrangement, and see cells provided for the cradling of young queens, bees and drones, and suitable, too, for acting as reservoirs for honey. In considering the subject of treatment that the 3 kinds of bees receive in their cells, it should not be forgotten that queens are only 14 days in their cells, bees 21, and drones 24. This subject, beset as it is with difficulties, presents a wide and interesting field for future investigation, as it is to be hoped that apiarian students will turn their attention to it.

That "all eggs in the ovaries of queen bees are naturally and originally male, and develop as males when laid without being impregnated, but are changed to female if impregnated before being laid," is a statement of Baron Berlepsch, the truth of which has been illustrated and confirmed by extensive experiments and well-established facts. Notice first that unmated queens are not unfertile, they lay male eggs. Some queens are hatched with defective wings and cannot fly, and, as queens are mated outside their hives, those that cannot fly remain virgin. Many queens perfect and able to fly remain so by misfortune or inclement weather. Many of these queens lay eggs which are capable of hatching into drones only. Such queens are drone-breeders.

Now notice that queens mated in early life are capable of laying both male and female eggs. Those who have investigated the subject say that in the body of the queens there are small sacs, by name, spermatheca, which receive and retain for use the sperm, that queens have the power of using it at will, and that all eggs touched by it in passing are changed from male to female. This will appear to many students of nature to be anomalous and extraordinary. As queens live 4 years and are wonderfully prolific, the contents of their spermatheca are sometimes exhausted before they cease laying, or rather before they die; the eggs laid after the spermatheca has been emptied remain male and hatch into drones. Though we have had many queens die of old age, and have known many hives of our own bereft of their queens by age, we have never known a mated queen to become a drone-breeder merely in in her old age. We have seen queens by reason of old age totter and stagger as they walked, others dethroned and cast out of their hives in a state of dotage, and one this year lost a limb and could not walk on the combs, but fell to the board again and again. All these continued to lay female eggs till the very last. Other teachers, among them Dzierzon, Berlepsch, and Woodbury, have had fertilized queens that became simply drone breeders and the statements of these able men are trustworthy.

If other proof be wanted to establish the statement that all eggs of queens are naturally and originally male, it will be found in the fact that from the parents of different races, say from Ligurian queens and common drones, we have no half-bred males. Paternal influence does not affect the direct male progeny; indeed half-bred drones are an impossibility. While young queens and working bees are decidedly cross-bred, the direct male offspring share no influence but that of the mother. Let me now call the reader's attention to a nice point or distinction between the words "half-bred" and "cross-bred," also between "direct" male progeny and "indirect." While drones have no half-bred—that is to say, direct male progeny, there is the possibility, nay, the liklihood of the second and third generations catching up and possessing some of the characteristics of the grandfather. This is the idea I wish to convey, that while drones have no sons of their own they may have daughters which may carry the characteristics to future generations of both male and female offspring. The history of drone life is stranger than fiction, and is perhaps without a parallel in natural history.

Again, it is known that some workers lay a few eggs which invariably hatch into drones, and as workers are imperfect females, incapable of fecundation, these fertile workers lend some small additional proof to support the statement that all eggs of bees are originally of a male character.

This subject is fully discussed and elucidated in a small pamphlet, by the late Baron Berlepsch, called "The Dzierzon Theory," On page 26 the Baron says "that queens' eggs are susceptible of development though unimpregnated, but masculinity still pre-exists therein, which, marvellous indeed! is transformed into feminity by impregnation with the male sperm. I am anxious to attract the attention of my readers to this portion of the theory, for it is the most important of all the propositions I have undertaken to discuss. With its aid almost everything relating to bee-culture becomes intelligible; without it hardly anything is clear. He who does not fully comprehend this point will grope in the dark in all his operations, and be constantly exposed to mistake and disappointment."

London, England. June, 1881.

CONVENTION
NOTES

Prize Essay of the Northeastern Convention.

How to Winter Bees Successfully.

CH. DADANT.

Bees are altogether different from most of the other insects, in this respect, that instead of becoming torpid in winter, they remain active. Although a lone bee is killed in less than 48 hours, in a temperature under 40 degrees, yet bees live and prosper in the coldest regions. Their gathering in numerous families helps them to generate, during winter, the warmth necessary to their existence. It seems that their instinct directs them in the selection of their abodes; for, at Borneo and Sumatra, as well as between the tropics, they feel that to inhabit a hive is unnecessary, and they build their comb under the limbs of big trees; while in northern climates they seek the protection of hollow trees. The motion of the sap maintains inside of the tree a temperature above that of the outside. In northern Russia the travelers, astonished at seeing so far north so many bees, wonder how so small an insect can resist the severity of such a climate. To own bees, as domestic animals, man, who inhabits so varied countries, had to provide them with dwellings suitable to the different regions in which he was located. Thus different materials were used to make bee-hives. In some parts of Africa bee-keepers use hives made of sticks joined together with wooden ligatures. In Arabia, in Egypt, in Cyprus Island they use earthen jars, as in some parts of southern Europe. Farther north they procure gums; farther yet, straw twisted and fixed with willow twigs. But as bees are indigenous to a warm climate, very often these protections prove insufficient; then some tried to protect their colonies by putting them in places where cold could not penetrate.

In the middle of Russia they dig wells 20 or 25 feet deep. They pile in them their bees, which are in gums; the gums are placed horizontally, the lower part of the gum remaining open. The well is thus filled to about six feet from its top. Then a cabin, made of straw, is built upon the well, and the bees are left to themselves for five or six months. In localities, not far distant from old quarries, or from dark natural caverns, the bee-keepers bring their bees in these for winter. Others bury their hives in soils, and succeed well, when the ground is not too wet. Some put them in cellars, or in buildings, especially made for the purpose.

All these means, although good in themselves have sometimes turned to disasters. Such losses cannot be ascribed to fatality, but to some wants of the bees which are not fulfilled. Not the apiarian science, but chance, had directed the cares bestowed; and when the winter was over the bee-keeper reckoned a great many losses, which he was unable to explain. He had prepared his bees the same as in the preceding years; the same as did his father and his forefather before. Then with a simplicity similar to the dark ages, he imputed his losses to the fault that he had made, by selling for money a few of his colonies; or by forgetting to put a black crape on his hives at the time of the last death which occurred in his family.

Now, thanks to the studies of our predecessors, the conditions of a successful wintering are better known; and when a loss occurs in the apiary, the bee-keeper cannot impute it to any other cause but his lack of knowledge or foresight, or of good management.

Before going farther in our subject, let us examine first what happens in a colony during winter. There is a fact that a bee-keeper ought not to lose sight of: it is that bees, in winter, do not inhabit the combs which are filled with honey They gather directly below the sealed honey; the mass of the bees, on every comb, being congregated in the form of a disk. On this disk the bees hang imbricated, like the shingles of a roof. Every bee has its head under the abdomen of the bees immediately above; and so on, to the bees which are close to the honey. These last bees suck honey and give some to the bees immediately below; these do the same for their neighbors; and so on, to the last bee of the group. As soon as the honey of the first attainable cells is exhausted, all the mass move upward to reach the full cells till the top of the comb is reached. Experiments show that the temperature, inside of the group, is about 70 degrees. As long as such temperature is held inside the group the bees remain motionless, almost sleeping. It the temperature of the mass decreases, the bees who feel the cold generate warmth by a beating of wings. This motion sends some warm air downwards to warm the bees, which are altogether under the group. It is for this cause that, when the weather is very cold, we can hear the humming of our bees inside their hives. But by beating their wings bees digest faster; then the consumption of honey increases. Such is the cause why a colony ill protected consumes more than a colony located in a place where the temperature is suitable. This increased consumption explains also why the intestines of bees, in winter, are soon filled in unprotected hives.

When the temperature keeps warm, the queen, who dwells in the middle of the group, begins to lay, then water is needed to help in feeding the brood. If the colony has wintered outside, the daily alternatives of warm and cold give to bees the chances of going out for water, or procure it inside the hive, by the condensation of the steam produced by breathing. If the bees are in a cellar, or in some other winter depository, when the rising of the temperature excites the queen to lay, as there is no condensation of steam, the bees become restless on account of the dearth of water.

Now that we know how bees behave in the hives during winter, let us see how to prepare them for a safe wintering. The first thing is to ascertain that every colony has a queen, and to see whether our colonies have enough bees to keep the right temperature in the group. When we find a queenless colony, it is an easy matter to unite it with some weak colony having a queen. We can also unite two feeble swarms, to make a good one. As to the number of bees necessary for a good wintering, that will depend on the cares and the means that the bee-keeper can use to protect his bees. A colony numbering 10,000 bees or less, about two pounds, can be successfully wintered if well cared for.

We have now to resolve the question of wintering our bees inside or outside. If outside, let us keep in mind that, in cold spells, bees cannot pass from one comb to another, and can starve on an empty comb besides fall over out of their reach. This fact, which gives to the large combs a superiority over the small ones, led to the practice of punching a few small holes in the combs. Such care is not taken as regularly as it ought to be; and I, for one, have too often regretted my neglect on that account, when my bees starved with a quantity of honey in the hive.

For the same reason and in order that bees could more easily warm their groups, it is indispensable to take all the empty combs, reducing the number of the combs to the space that bees can occupy, on condition, nevertheless, that we leave honey enough to winter on. Of course, if some of our colonies have too much honey, while some are poor, it is an easy matter to take one or two full combs from the rich ones to give to the poor. It is generally admitted that 15 or 18 pounds are enough for a colony to winter on; but it is safer to leave more rather than less. But do not waste honey; a colony with ten pounds more than what is necessary will, on an average, be in better condition for the crop than one with 10 pounds less.

The next precaution is to see whether the honey is of good quality, M. Maurice Girard, a French scientist, in a book entitled "Les Abeilles," says that honey is composed of crystallizable and uncrystallizable sugars. The crystallizable sugar is easily and completely digested by bees, while the other is of a more difficult and incomplete digestion. It is for that reason that pure cane sugar is better than honey for winter. For the same reason spring honey is better than fall honey; honey dew is still worse, and the juice of fruits are the worst substances for wintering bees.

Very often it happens that bees have put honey in cells partially filled with pollen, and sealed them. This fact is easily ascertained by looking through the combs. The cells containing pollen have no transparency. Not only the quantity of honey is smaller in these combs, but this honey is unsafe for winter, on account of the pollen which, eaten with honey, compels the bees to void their feces often. A colony living on pure honey will endure 5 or 6 weeks of confinement, while one with impure honey will get the dysentery if unable to fly out when needed.

Unsealed honey is unsafe also on account of the water that it contains, and of the water that it gets during winter, by the condensation of the steam generated by bees in cold days. The condensation sometimes fills the cells containing the unsealed honey, so as to appear in large, round drops, held on every cell by capillarity, and ready to run out at the slightest jar. When the capillarity is no longer able to hold these drops they run out of the cells, and the bee-keeper seeing this sugared water at the entrance of the hives, wonders how it is produced. Bees cannot winter on such matter without becoming sick. We therefore will act wisely in taking out all the frames containing unsealed honey, especially when the number of such frames is very large. After winter these combs will greatly help the colonies in brood-rearing.

When the quantity of sealed honey seems to be insufficient, the provisions can be completed by syrup made from coffee A or granulated sugar, dissolved in warm water. The quantity of water ought to be 1 pound and 1 ounce for 2 of sugar. Let me here advise bee-keepers not to use glucose, or grape sugar, for winter.

If we have chaff or double-walled hives, the protection around it is itself sufficient to protect them on their summer stands, yet I advise to put under the bottoms of the hives some dry material, such as dry leaves or straw, and some also on the top of the frames. I suppose that our hives have a cap, as in the Longstroth or Quinby, or that they are double story. We take out the cloth, which ought to cover the frames, and replace it with a mat, made of seed or straw, then we fill the cap with straw or dry leaves.

If we have single walled hives, there are several ways of protecting them. We begin by preparing the inside. In the room made by reducing the number of combs we place a partition board, or some kind of cushion, and fill the interval with dry leaves or chaff. Then we fill the top, as above, with some warm and absorbent material, to rid the bees of the dampness produced by the digestion and the respiration.

At one time I forgot to prepare a good colony for winter. This colony had 7 Quinby frames, without partition, in a hive of the capacity of 11. It had neither cloth nor honey board, above the combs. In the spring I found the family greatly reduced in numbers and all the honey gone. All the combs were wet, as also the sides of the hive, and the cap. The dampness having lasted all winter, the boards were soaked and blackened. To rescue this unhappy colony I had to put it in another hive, and give it dry combs

Some bee-keepers advocate a current of air in the hives; a current that carries away dampness. This method will do for southern climates, but it increases the consumption of honey too much for the northern States. Yet, had I to choose between a current of air and a tight closed top, without other protection, I would prefer the first.

At one time, while preparing my bees for winter, I was interrupted by a sudden change of the weather. For a few days the weather was very cold. When I resumed the work, I found the under cloth and part of the combs in every hive damp and covered with ice. I then opened, for comparison, a number of the hives on which I had put a mat with dry leaves. The combs were dry, in every one. At noon of the same day, I noticed water running out of the unprotected hives, while the entrances of the protected ones were dry.

But, in our climate, the inside partition is not sufficient to winter, on their summer stands, single boarded hives; and we have to provide an outer coat for them. It results, from experiments made, over 100 years ago, by Klaumur and by Gelicu, that very small colonies of bees can be wintered safely, if the protection is sufficient. They put straw hives, containing weak colonies, in boxes filled with straw or dry earth; after preparing channels, through which bees could fly out. The bees wintered perfectly. A number of bee-keepers in this country have tried this method, with excellent results, and was not this way too cumbersome and expensive I would recommend it.

For outer protection to our single walled hives, we use dry leaves or straw. We gather this material around the rear and sides of the hives, and tie it about the hives with a kind of rope ladder, made with 12 or 15 laths, 20 inches long, and 2 strings tied together, in front of the hives. This protection is sufficient. When winter is over we roll our cord ladders and put them in the garret. We do not put them in front of the hives, for bees need every warm spell, to fly out of the hive. I know a German bee-keeper who killed his bees by preventing them from flying out in winter, by means of a wire cloth placed before the entrance.

Far from advising bee-keepers to use such precaution, I will give a suggestion which is altogether the reverse of it. A few years ago we had a very cold and long winter. For 7 weeks our bees were confined, by cold, in their hives; and such a cold! One day I saw the thermometer at 37° below zero. On the 16th of January the weather being warm I hastened to the apiary. Of course I opened the weak colonies first. Every one was alive. Satisfied with the result, I did not disturb the strong colonies. They did not on this warm day fly out; while all the small ones, awakened by my visit, filled the air with their hummings. The cold weather came again for 3 weeks more, and I found that all my strong colonies were reduced in numbers, or dead, from dysentery; while every one of the smaller ones were alive and healthy.

Now after a spell of more than a week of cold weather, as soon as the thermometer rises to 45°, in the shade, I disturb every colony to compel their bees to fly out. I am not deterred from disturbing them even by snow, if their confinement has lasted 2 weeks; for the loss of a few bees, falling in the snow, is little, when put in comparison with the risk of a confinement prolonged 6 or 7 weeks, or more.

Of course such a disturbance would not do during cold spells; for the smallest jarring of the hive excites bees to quit the groups, and the cold benumbs and kills every bee that leaves the mass; for although the temperature of the central part of the cluster is about 70°, the outside of the cluster is sometimes below the freezing point.

Every colony wintered on the summer stand ought to have, as far as possible, its entrance turned south and its bottom slanting, so as to let the water generated by the bees run out of the hive.

From time to time it is well to see whether the entrance is free from dead bees or ice; for the lack of air would kill the colony.

For a good wintering in a cellar, or other winter depository, the first precaution, after looking for the queens and the provisions, is never to put the colonies in the cellar after a few days of cold weather; but to wait till the morrow of a day during which bees have had a good flight. The reason of such a precaution is obvious. Our bees will be confined in the cellar for months; if we put them in the cellar when their intestines are empty, as they are after a good flight, they will easily endure a long confinement. As bees, after 4 or 5 months, remember the location of their hives, care ought to be taken to mark the place that every one occupied.

The hives can be piled in columns of 4 or even 5, with the precaution, if they are piled without bottoms, to put a few laths between them, to prevent the mixing of the bees.

The cellar ought to be as free from mice as possible. The bees ought to have good ventilation, I mean a current of air, by opening the entrance if the bottoms are nailed, and the cloth glued at the top.

The cellar ought to be dark and easy of ventilation, without admitting light.

The temperature of the cellar ought to be about 45°; or 43°, when the bottoms are nailed to the hives. When the temperature is suitable, it is only with an attentive ear that you can detect the humming of the bees. This humming increases as the temperature increases or decreases. When the room is too cold, the bees generate warmth by beating their wings: when it is too warm, they roam on the combs, impatient to go out. The temperature can be raised by shutting the outside apertures of the cellar. It can be lowered by opening the windows at night if the nights are cold, or by putting in the cellar some ice to melt; the drippings of the ice should be received in a vessel. When all these conditions are fulfilled, bees can be left in the cellar for 4 months without suffering.

To replace the colonies on their summer stands, select a day promising to raise above 45°, in the shade, and hasten to bring out all the bees before noon, so as to give them a chance of flying out, on the same day; for a confinement in the hives by cold, when their bowels are full, would be fatal to a number of workers. If the bees do not suffer in the cellar, they will act as if they had wintered on their summer stands; but if they have been restless for days and weeks, as is sometimes the case when February and March are warm, some colonies will swarm out of the hive in which they have suffered. When such desertions begin in the apiary, it is difficult to prevent them from inciting other colonies to follow the impulse. When such trouble is anticipated, we ought to be careful to bring out only a few colonies at a time, waiting to bring more till the excitement produced by the first flight has subsided.

One of the causes of such untimely swarming is the lack of water, caused by the failing of brood, for the queens lay in the cellar when the temperature rises; but the bees cannot find water to feed the brood, since there is no condensation inside the hive.

I will not speak on wintering bees in closed bee houses, for such buildings are not fit for our country. If the temperature of the closed room is cold, bees are not better than on their summer stands; if it is warm, bees are incited to fly out in cold days and cannot return.

To sum up the above, for a successful wintering of bees, every colony ought to have a queen; a sufficient quantity of suitable food; a protection against cold and dampness; an absolute quietness during cold spells, with a chance to fly out every time they need it, if wintered on their summer stands, or an equal and suitable temperature if wintered in dark cellars.

When these conditions are fulfilled, we can be assured of a good success. Such is the result of my observations continued for 17 years, in which, having begun with 2 colonies, and sold several hundred, I have enough left to people 5 apiaries.

Hamilton, Ill.

☞ The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting Aug. 30, at Rock City, Stephenson Co., Ill. JONATHAN STEWART, *Sec.*

THE AMERICAN
BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., AUG. 3, 1881.

International Congress in Italy.

We have received the following very kind invitation to attend the Italian International Congres :

Milan, Italy, July 1, 1881.

HONORABLE MONSIEUR : The International Congress of Apiculture will be held in Milan, on Sept. 15, 16 and 17, 1881, and the President of the Central Association for the promotion of apiculture in Italy, being desirous of making the Congress the most productive of good results,and at the same time to subserve the interests of apiculture, by promoting the progress and prosperity of the industry, is very desirous of obtaining the attendance of the most renowned apiarists of the world. I have, therefore, the distinguished honor and extreme pleasure of sending you this most cordial invitation to attend our Assembly.

The Society would be extremely pleased to have the honor of your attendance, and would deem itself very fortunate by your participation in the discussion of the important topics and interesting themes that will be brought before the Assembly.

Should you, however, be unable to attend personally, will you be pleased to put your views on some topic of interest in writing, and submit it to the Congress for discussion, by those who will be in attendance.

The Industrial Art Exposition will be held in Milan, and will remain open until the end of October. Railroad fares will be much reduced, and many other inducements will be offered to attract visitors at that time to our Congress.

The President has the honor to present you, Sir, his most cordial felicitations. A. CADELIN, *Cor. Sec.*

We shall ever have occasion to remember our visit to Milan, Italy, and, while memory holds its sway, we shall never forget the pleasant hours we spent with Count Barbo, the President of the Society, and also with Count Alfonso Visconti de Saliceto, the able editor of *L'Apicoltore*, the organ of the Society, and exceedingly regret that our duties in connection with the BEE JOURNAL will not permit us to accept their cordial invitation to be present at the International Congress.

We have, however, promised to send a letter to the Convention, in French, on "Progressive Apiculture," to be read and discussed by the noted apiarists that will be present, and hope that the Congress will be deeply interesting to those present, and of vital importance to progressive apiculture the world over.

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☞Prof. Vennor's weather predictions for August are: First week, pleasant days with cool evenings and nights ; second week, hot, cloudy and sultry days, with cooler nights ; third week, cooler weather, with storms in Virginia, ending with hot, cloudy weather and storms ; fourth week, sultry and windy weather, with heavy storms on the lakes, St. Lawrence river, and around New York ; fifth week, cooler, with rains and frosts in the North, and pleasant days with cool nights further South, with indications of returning heat.

Journal of Chemistry on Glucose.

We are in receipt of the following letter, relating to an editorial which appeared in the Boston *Journal of Chemistry* for July, 1881 :

MR. EDITOR : Allow me to call your attention to an editoral in the *Boston Journal of Chemistry*, on glucose. I have ever been accustomed to place almost implicit confidence in Dr. J. R. Nichols, Editor of the *Journal of Chemistry*, as a reliable chemist and assayer. He has for many years manifested a deep interest in exposing frauds and adulterations of articles in common use, both as foods or medicines. I was not prepared to see just such a position as he takes on manufactured glucose in the July number of his Journal. If what he says is true, then it seems to me we may bid farewell to the thought of ever bringing honey—especially extracted honey—into very general use. It cannot be produced as cheaply as glucose from corn. He thinks the glucose of commerce not particularly poisonous, but only a swindle by selling it for more than it is worth as a sweet. Please tell us what you think of it.
D. K. BOUTELLE.
Lake City, Minn., July 6, 1881.

As we have so often unmistakably committed ourselves on the subject of food adulteration, and, in fact, against every artifice for obtaining money fraudulently, we do not feel authorized in commenting at length upon the article referred to by Mr. Boutelle. As there are no new developments, and the article is somewhat lengthy, we must content ourselves with making brief extracts from it. Dr. Nichols states facts very frankly and fairly, and evidently without any prejudice. Were all as candid and honest as he, the public would have but little to complain of. He is, of course, very guarded in his indorsements of glucose, and, to prevent misconception, in several places makes a prefix of the word *pure* to glucose. Nor does he intimate that a majority, or even a considerable portion of that sold is pure, but the contrary. The introductory paragraph is perhaps most objectionable, as it partakes more of sophistry. It reads :

Glucose is the sugar of the future. Oppose it as you will, it is daily increasing in importance and in the number of its uses. In climates where the sugar-cane will not grow, and in countries where the sugar-beet cannot be cultivated with profit, there is a wide field for glucose. Wherever corn, grain or potatoes thrive, there glucose factories will flourish. Glucose differs as much from cane sugar as tallow from lard, or butter from oleomargarine. Both kinds of sugar are sweet, although in a very different degree, and for many purposes one can be substituted for the other without the consumer being aware of the fact.....

The uses of glucose are very numerous, although it is *seldom sold to the public under its real name*; but under the *alias* of "golden drips," "sugar-house syrup," "strained honey," and even Vermont maple syrup, its sale is very extensive. It is largely employed by confectioners for making candies, by wine dealers for strengthening wine, by brewers to add body to their beer. Dr. Kedzie, of the Michigan Board of Health, reports that of 17 samples of table syrup tested by him, 15 contained glucose. Of 20 samples analyzed in Chicago, only 1 was unadulterated.....

We do not believe that *pure* glucose is an injurious substance *when properly made*, but to sell it under the name of cane sugar, when it is but *one-third as sweet*, is a **fraud**; and to charge the price of cane sugar, when it costs but *three cents a pound* to make it, is a **swindle**. That it pays to make it is evident from the fact that there are more than twenty glucose factories in this country, turning out over one million pounds per day.

We are forced to disagree with Dr. Nichols as to the desirableness of glucose for any purpose, and think its importance as a commercial commodity is greatly magnified ; and, like the Doctor, we do not object to its manufacture and sale *as such*, but the *fraud* and *swindle* all honest people object to. But few persons will care to buy even *pure* glucose, when they know it is but one-third as good as sugar or honey, and we cannot refrain from thanking the editor of the *Journal of Chemistry* for adding his testimony to the fact.

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Counterfeit Comb Honey.

We find the following article going the rounds of the press :

Prof. H. W. Wiley, in the *Popular Science Monthly*, records the amazing progress of the glucose industry. There are 20 immense glucose factories either built or in progress of construction. Already a capital of over $2,000,000 is invested in the business. The daily consumption of corn for the manufacture of glucose is about 35,000 bushels, and the annual amount about 11,000,000.

It is hard to find a table syrup wholly free from this adulteration. Glucose is said to be present in most beer now brewed. The bee himself is not as busy as the glucose manipulator. The latter puts up a "honey" of which the waxen cells are made of paraffine, and the contents consist of snow-white glucose. The fraudulent comb and honey are handsomer than the finest white clover "Vermont," and can be sold at half the price, at a greater profit.

To the question, "Is glucose wholesome ?" the Professor replies :

It all depends on the presence or absence of sulphuric acid, lime and copper, which are apt to find their way into the article through imperfect chemical treatment.

Prof. Wiley is greatly in error when he asserts that artificial honey combs are manufactured from paraffine, filled with glucose, and sold as honey. The story originated in the fertile brain of some sensational newspaper correspondent, where the Professor probably obtained the idea, and accepted it as true, without investigating its possibility. As we have heretofore intimated, *It has never been accomplished.* The hoax has really done much harm, as many unthinking persons, knowing the prevalence of adulterations, have become prejudiced by it. Referring to this, we are in receipt of the following from Mr. R. Mayerhoffer, Prague, Austria :

I have read an alarming paragraph, published in the principal European papers, that an ingenious Yankee has constructed complete honey combs, and well filled them with honey. The capping of the cells must be a fine operation ! It is impossible for man to accomplish this miraculous work of the bee. I have read the BEE JOURNAL, but have not found a notice of the humbug.

We have twice alluded to it, and denied its practicability.

◆

☞The Ninth Industrial Exposition will be held at Cincinnati, O., Sept. 7 to Oct. 8, 1881. A large number of premiums are to be awarded, consisting of purses of gold, gold and silver medals, etc.

Premiums for Apiarian Exhibits.

We cheerfully give place to the following communication, as it touches upon a subject which we consider of vital importance to honey producers :

Council Grove, Kan., July 25, 1881.

EDITOR BEE JOURNAL :—The St. Louis Fair Association offer premiums to the amount of only $15.00 for honey and beeswax, while for beer, wines and tobacco they come down to the tune of $450. Their honey premiums are less than half the sum paid by the Western National Association, at Lawrence, Kan., in 1880, and yet they are the centre, commercially, of a very large extent of territory in which bee-keeping is profitable.
D. P. NORTON.

There is, perhaps, no pursuit in the country so general in its location and so little understood by the great mass of our intelligent population as scientific bee-keeping ; indeed, the knowledge of most learned men extends only to the facts that there are two kinds of honey kept on sale in most of the stores, namely, comb honey and "strained" honey—the former they buy, because they relish it ; the latter they abhor, because it does not taste as honey did "when they were boys." Many do not understand why this is, and all have a distrust of liquid honey. People should be educated to an appreciation of the excellence and economy of all *pure* honey, and we know of no place offering as good facilities for a diffusion of that knowledge as the Agricultural Fairs and Expositions. For this reason State Vice Presidents and local Societies should make extra exertions to secure the award of liberal premiums at *every* Fair within their jurisdiction ; should no premium be offered, the more need for a creditable display not only of comb and extracted honey, but all the implements pertaining to the apiary, and, if possible, a colony of bees ; above all, do not forget the extractor, and a few combs of honey with which to illustrate its use. The omission of the premium is proof of the ignorance, on the part of the executive committee. of the importance of the bee-keeping interest.

All honest branches of industry find it a profitable investment of time and money to exhibit and advertise their products, and bee-keepers ought to have discovered by this time that they are not an exception to the rule. Liberal premiums, of course, stimulate competition, and competition develops superiority. Vice Pres. Norton deserves commendation for his energy, and he will give an impetus to progressive bee-keeping in Kansas that will accomplish much good.

◆

Sorely Tempted.—The following is clipped from a late number of the *Farmers' Review*, Chicago :

What are we coming to ? Dairymen are accused of buying oleomargarine, and now a Louisiana sugar manufacturer is reported as having come to the conclusion that glucose will soon be largely used for mixing with sugar-house syrup. He offers the excuse that people will be better satisfied with such a combination syrup than with the pure article.

We are sorry the Louisiana man can not frankly tell the truth, and say that he is unable to compete with the adulterators. We do not like his poor subterfuge of an excuse.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Death of the N. Y. Adulteration Bill.—The following we find in the *Bee-Keepers' Exchange* for July, and it has awakened a curiosity to know the persuasions brought to bear upon the Governor by the swindlers. If a percentage of their ill-gotten gains, then, how much?

We saw an item in a newspaper recently, which stated that the Governor of New York State had vetoed the bill regulating and punishing the adulteration of sugars, syrups, honey, etc.

* * *

Melilot as a Honey Producer.—Mr. F. L. Dougherty, in the *Indiana Farmer*, says:

The excessive hot weather during the fore part of this month burned up the white clover, shortening the season about 2 weeks. White clover did not yield honey so well as we were led to hope, by its condition early in the season, however our melilot is still holding its own, being covered with bees from early morn till late at night. Although not making surplus honey, the bees are getting enough for present use, enabling us to continue queen-rearing, and the building up of nuclei, without feeding. Almost everything, except white clover, has yielded copiously this season, and we hope for a good fall crop of honey.

* * *

An Editor's First Experience with Bees.—The Fayetteville (N. Y) *Record* has an amusing account of the editor's first experience with a colony of Italians. At first he was filled with *fear* and *dread* of his "*little pets*;" but now, seeing such a good result of their summer's work, so far. he is beginning to *love* them just a little. They were a present from Mr. George W. House, of that city, and Mr. H. has given the editor instructions and practical lessons in the management of the colony. His outburst of admiration is given in these words in the *Record* of last week:

The 28 boxes placed there a few weeks previous were all filled. Mr. House informed us that this was an unusual product for this season of the year. Forty-six pounds of new honey, and a new colony is, we think, a pretty good opening before the first of July. If any person can beat it we want to hear from them. Mr. H. says that 10 or 12 pounds more would undoubtedly have been obtained had the boxes been removed several days previous. He also informs us that we may safely count on from 160 to 200 pounds of honey this season from our Italians. It may be that the colonies are extraordinary workers, but undoubtedly the arrangement of the hive facilitates their labor. To whatever circumstance the product may be owing, we are satisfied with the House bee hive.

* * *

Poisonous Honey.—The *Bienen-Vater*, published in Vienna, Austria, gives the following bit of history, from an English work, on poisonous honey:

The English Blue-Book of the Department of Commerce, which has lately appeared, contains a report of Vice-Consul Bilicki, in regard to the trade at Trapezunt and the surrounding districts, in which, in a singular manner, an ancient classical writer receives due credit. Xenophon namely relates, in his Anabasis, that many of his soldiers were taken sick after eating wild honey from the valleys near Trapezunt. The Vice-Consul states that, although a great many bees were kept in those regions, not one would eat of the delicious honey which they produce. Whoever did so, ignorantly, soon after experienced dizziness, began to vomit, and fell into a stupor, and, sometimes, even death would follow. Bee-keeping is carried on solely on account of the wax.

The cause of the injuriousness of this honey is to be found in the fact, that in these valleys, there grows in great abundance a poisonous plant, the deathly nightshade, from whose beautiful flowers, rich with honey, the bees gather the delicious, but poisonous honey. Upon the heights where these plants are not found, the honey that is gathered there is fit for eating and not injurious. By this statement, Xenophon receives confirmation.

Besides, this poisonous honey is also to be found in other regions, where poisonous plants luxuriate.

* * *

Feels Proud of the Weekly.—The *Kansas Bee-Keeper* makes the following remarks about the Weekly BEE JOURNAL, and has our thanks for the "kind words" which are there expressed:

The AMERICAN BEE JOURNAL was established in 1861, and is the oldest bee-paper in America. It was published as a monthly until January, 1881, since which time it has been issued weekly, it being the only weekly bee-paper in the world. Its advent as a weekly marks a step in the progress of apiculture, of which the bee-keepers of America can justly be proud. Mr. T. G. Newman, its editor and proprietor, is an able and earnest defender of the right, and outspoken in his denunciation of that which is wrong or has a tendency to cast a shadow of reproach upon the fair name of our chosen pursuit.

For his energy and perseverance in giving us a weekly bee-paper, and the efforts put forth to impart useful and reliable information on all subjects pertaining to bee-culture, his paper should receive the patronage of every bee-keeper.

* * *

Ginger Honey Cakes.—A German paper gives the following receipt for making a superior quality of fine honey cakes:

Let a pound of honey boil up in a brass kettle, then add to it one pound of sifted sugar, ¼ lb. of coarsely ground almonds, 2 whole eggs, the yellow peel of a lemon, grated, a little candied orange peel and citronate ground fine; then gradually add cardamins, cloves, cinnamon, and about ½ lb. of fine flour, and stirring diligently. After having mixed the whole well, add ¼ ounce of potash, dissolved in a little water, and a glass of rum; then convey the whole mass upon a vermicelli board, covered with flour, knead with it as much flour as will be necessary to form a dough, roll this dough out to the thickness of a leadpencil, cut it into sizes to suit you, and bake it upon a baking-tin at a moderate heat, until light brown. By covering the pieces while hot, with a boiled solution of sugar, using a brush in doing it, the cakes will gain a pretty color and greater sweetness.

* * *

Scientific Bee-Keeping.—The Editor of the Linneus (Mo.) *Bulletin* gives the following notice of his visit to the apiary of Mr. J. S. Duncan, Browning, Mo., one of the best and most progressive bee-keepers of that State:

Mr. Duncan is an enthusiastic and practical bee-keeper. By invitation, we reluctantly visited his bee-yard—for we know the pain a little bee can give—but we were fully assured there was no danger, and without veil, gloves, or any other protection except a little smoke, he opened a hive and lifted out frame after frame and showed queens, drones and bees; the different sizes of honey comb, worker, drone and queen cells, the distinction between the Italian and Cyprian bees, as these are the only kind he keeps. His bees are worked for comb and extracted honey. The honey extractor is a marvel of simplicity; the frames of comb filled with honey are lifted from the hive and set in the extractor, and before you know what has been done the comb is emptied of its precious load, ready to be set back in the hive to be refilled with honey again. In this way a large amount of honey can be taken from each colony in a short time, as the bees have no comb to make, which is the most expensive article in the bee hive. This, our first visit to an apiary managed on scientific principles, was amusing as well as instructive, and to all any way interested in the honey bee we would advise to call and see Mr. Duncan and his bees.

* * *

The Krainer Bees.—The *Bienen Zeitung* contains an article from Hern Michæl Ambrozic, of Moistrana, Krain, Austria, on the Krainer bees. The writer is a very enthusiastic admirer of that variety, and gives some information concerning it in its native home. From his article we give the following extract:

The profits of the apiary in Germany and Austria, are estimated to be 45 per cent. on the capital invested. But bee-culture depends largely upon the hardiness of the race of bees, and their propensity to gather honey. Krainer bees, in these respects, must be preferred. The rough climate of our mountainous country has made our bees a hardy race, for they have been hemmed in by mountains for centuries. Our bees fly in dark and cool weather, and suffer very little from dysentery and other spring maladies. The rich mountain meadows and forests of Krain, with their profusion of bloom, animates our bees in the spring, and we often find them flourishing in March and April, breeding early and beginning early to swarm.

My apiary is situated but 1½ miles from the Mountain Triglav, which is 9,000 feet above the level of the sea, and its north side is covered with eternal fields of ice, but for all that my hardy Krainer bees visit the herbs on the rocks in March and April, showing that they will succeed in any country, for they are used to rapid changes of temperature, and I can recommend them for importation to any country. Our bees are proverbially kind and gentle.

* * *

How to Prevent Robbing, etc.—At this time, in the absence of sweet clover, robbing is liable to prevail. The *Indiana Farmer* makes the following suggestions:

Weeds or small brush set up before the entrance to hives will prove considerable of a barrier against robbers, as they dislike very much to approach the entrance by winding passages. For very bad cases of robbing, a wet cloth hung over the entrance and kept dripping is generally very effective.

Bees use large quantities of water during the hot dry days of July and August. If they have not an ample supply handy, it should be provided them in some kind of an open vessel, in which floats must be placed to keep them from drowning.

During the drouth, which usually lasts until about the middle of August, the bees are much inclined to rob, therefore the entrance to all weak colonies or nuclei should be made small to enable them to better protect themselves from robbers. In this case, the rule that an ounce of prevention is worth a pound of cure, is well exemplified. With a little care robbing is easily prevented. If they once get a start at robbing, it is, at times, very hard to stop them.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—But little comb honey is yet upon the market, and the quotations are rather premature. New extracted honey is quite plentiful, and in good demand.

We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 7@9c.

BEESWAX—Prime quality, 18@23c.

NEW YORK.

HONEY—New white honey in the comb, in 1 or 2 pound boxes, will bring 18@22 cents, though but little is offered yet.

White extracted, 7@10c.; dark, 7@8c.

BEESWAX.—Prime quality, 18@22c.

CINCINNATI.

HONEY.—A few small lots of comb honey have made their appearance on our market, which I bought at 12@15c. per lb. I have very many offers, but there being no demand yet, I have not commenced to lay in my supply. Extracted honey ranges from 7@9c., on arrival.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

HONEY—Light arrivals of new comb are noted. There are no recent sales of any description reported. Prices are at present nominal, inside figures representing about the extreme views of wholesale buyers.

We quote white comb, 13@15c.; dark to good, 10@12c. Extracted, choice to extra white, 8@10c.; dark and candied, 6@8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., July 23, 1881.

* * *

Local Convention Directory.

1881. *Time and Place of Meeting.*

Oct, 6—Union Kentucky, at Shelbyville, Ky.
5-7—National, at Lexington, Ky.
—Kentucky State, at Louisville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
11, 12—Northern Michigan, at Maple Rapids.
O. R. Goodno, Sec., Carson City, Mich.
11, 12—Northeastern Wis., at Berlin, Wis.
12—Central Ky., in Exp. B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
25, 26—Northwestern District, at Chicago, Ill.
C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.
1882.
Jan. 25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

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☞ The time selected by the Executive Committee for holding the National Convention, at Lexington, Ky., is October 5, 6, and 7, 1881. All bee-keepers are invited to attend and take part in the deliberations of the Convention. As Lexington is a central point, the Executive Committee hope to have a large attendance from the the North, South, East and West, and from Canada, and that the 12th annual meeting of the North American Bee-Keepers' Society will be the most interesting meeting that the bee-keepers of the United States have ever held.

The National Convention will be held during the time of holding the St. Louis Fair and the Expositions at Cincinnati and Louisville, and that all passing through those cities can get the benefit of excursion rates.

N. P. ALLEN, *Pres.*

* * *

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. MILLER, M. D., *Pres.*
C. C. COFFINBERRY, *Sec.*

* * *

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. GOODNO. *Sec.*

* * *

☞ The National Bee-Keepers' Convention meets on Wednesday, Thursday and Friday, Oct. 5, 6 and 7. Delegates to the Convention can get excursion rates to the Louisville Exposition. Cincinnati Exposition. St. Louis Fair, and to the great Cotton Exposition, at Atlanta, Ga.

N. P. ALLEN, *Pres.*

SELECTIONS FROM OUR LETTER BOX

Well Pleased with the Honey Crop.—Bees are doing finely, getting a good crop of pure white honey. I have had from 3 to 4 swarms from each colony. Those that have swarmed 4 times have recruited up, and are at work in the boxes. Bees are now at work on buckwheat in the early part of the day, and later they get to work on white clover, which is plenty yet. I am the only one in this part that has any honey to sell. I sell all my honey at home at a good price, and cannot half supply the demand. My bees have wintered without loss, but I lost a few colonies early in May by dwindling and robbers. With everyone else, I say, success to the Bee Journal. Eber Lucas.

Kirkland, Ill., July 26, 1881.

To Queen Breeders.—I wish some of our extensive queen breeders would give through the Bee Journal, a description of the most suitable size for making nuclei. I have the Langstroth hive, and wish to make some boxes for nuclei. but do not know the best size. Samuel Coulthard.

Preston, O., July 21, 1881.

Large Honey Crop of Best Quality.—Basswood has not given us a pound of honey this year, yet the season has been very favorable until a week or two ago. My 108 colonies have given me an average, so far, of 70 pounds each, nearly all white clover, extracted, and the best quality I have ever obtained. O. O. Poppleton.

Williamstown, Iowa, July 21, 1881.

Light Crop.—The honey season closed about July 10. The crop has been light, owing to unfavorable weather during nearly all of the white clover harvest. The basswood season was extremely "short and sweet." H. R. Boardman.

East Townsend, O., July 25, 1881.

Much Pleased.—I am much pleased with the Weekly Bee Journal. Its value has greatly increased, and it is now indispensable. To go back to a monthly now would be almost like throwing away the Langstroth hives and going back to the old "bee gums."

Spring Hill, Tenn. J. M. Davis.

Locality for Honey, Crop, etc.—The Weekly Bee Journal is the "right thing at the right time." I have frequently, this summer, had my questions answered, when in doubt, by the timely arrival of the Bee Journal. The monthlies are all right (I wish I could take and read them all, but that is impossible with me), but the Weekly just "fills the bill," for me, especially. When the Monthly Bee Journal formerly came to hand I could hardly spare time to read all of it, and it would lie around sometimes until another came, before I could more than glance through it; but I read the Weekly. I am increasing slowly, trying only to fill my combs, and am only working 2 colonies for surplus, and must say I think it a very poor year for bees. We have had no clover honey, to speak of, and now basswood is half gone, with a poor prospect for the rest. We have had a very few warm days and plenty of warm nights, and rain most of the time. The farmers ought to be happy, but bee-keepers will fall short of their bright anticipations for the summer's work, except in a few localities. Mr. Doolittle "hits the nail on the head" as to the season and queen-rearing. I never had such hard work to rear the few queens I want. So far as a locality for honey is concerned, this is as good as any in the State; from reports, I notice that when there is honey to be had, I get my share. It is pretty well stocked, however, and I can get no price in the home market, except what little can be retailed. Dealers want to pay 12½ cents, and sell for 20. There are, or have been (they may be out of business now), a few that bring in honey, and, by selling it low, spoil the market. I have seen nice white honey sold at 7 cents, and one man told me that he sold here at 16, but I have never been able to do so, and my honey has been the best and in the best shape. Before I sell more honey I must solve the oft-propounded problem—how to market the crop? I should have had no trouble if a prominent supply dealer had filled my order on time and correctly, for crates, as I should have sent it to your city, but the crates I ordered did not come as soon as I wanted them, and according to his promise, and when I got them they were too small and had to be enlarged. so, as the winter was rushing on so rapidly, I shipped to New York, just getting it through by Nov. 1., when winter began. I received returns on ½ of it about May 6, and the rest is on hand yet. S. E. Tubbs.

Auburn, N. Y., July 18, 1881.

Poor Season for Honey.—This is decidedly the poorest season for honey yet, with me. Too cold and wet for white clover to secrete, and basswood yielded only a part of one day. I have 135 colonies, and the most of them extra strong in numbers. I think the weather too cold for the basswood. Unless the yield is better other places, honey will be worth 30 cents.

A. A. Harrison.

McLane, Pa., July 23, 1881.

Poor Honey Yield.—The first harvest is now over and it has not been very favorable. We had an abundant yield of locust, but it was cut short by unfavorable weather. June was cold and wet, and the abundant yield of white clover contained but a small amount of honey. Basswood has come and gone, but did not amount to anything. May swarms were all hived on empty combs and comb foundation, and yet I have not received a pound of surplus from the whole. I commenced the spring campaign with 41 colonies, and have obtained only 440 one-pound sections, consisting largely of locust honey.

C. H. Fronce.

Erie, Pa., July 25, 1881.

Late Fall Breeding, etc.—I put 35 colonies in winter quarters Nov. 15th, 1880, packed in straw, which remained until March 7, 1881, when they had their first flight. At that time all answered to roll-call but 5, which died of dysentery. Most of them were in fair condition. Again they had flights on the 9th, 10th, 15th and 16th, but during that time the bees died very fast, the bottom-boards being covered every few days. For about a month the weather remained cold, so the bees had no chance to fly, and on examining them again I found all dead but 15. Some of these were too weak to survive, and I united 4 of them with others, and 3 swarmed out and united with some of their neighbors. When they began to carry pollen, on April 23d, I had 8, and all were weak but 3. Some of them could only cover a patch of brood the size of my hand, on one comb. I have now 19 in good condition, and have two that will cast their first swarms in a few days, and 1 to cast its after swarms. In the October number of the Bee Journal, 1880, page 475, I gave a description of my bees, asking you if it was a case of foul brood. They were then hatching their last brood for the season, and I found little patches of dead sealed brood in several of the hives after the rest had all hatched. This spring, when the brood began to hatch, I still found a little dead sealed brood, but none dead unsealed. As soon as they began to carry in fresh honey and pollen, their dead brood disappeared. I think my loss was from the bees not breeding late enough in the fall. I would like to ask:

1. Is this a case of foul brood, and if so, will it break out again?

2. How late should the last brood hatch in the fall?

3. Give the best way to feed, without feeders, to promote late breeding, and how late should honey be fed in the fall.

4. What quantity will 20 colonies require daily to promote breeding.

5. With hives in boxes well packed in straw or chaff, will it do to leave the caps off during the winter if chaff cushions are placed on top of the frames and straw above the cushions?

L. A. Burkholder.

Hamilton, Ont., July 16, 1881.

[1. Had it been a case of foul brood, there would probably have been a recurrence of it this season; again, with the contagion usually known as foul brood, there is always an accompanying fœtid or putrid stench, which is said to be unmistakable. The larvæ becomes stuck or glued to the bottom of the cell, and is rotten and ropy, so the bees cannot remove it. Yours was undoubtedly a case of brood killed by chilling. What it might lead to, in case there was much of it in the hive and the colony quite weak, or the weather cool and "muggy," we are unable to say. It has been a subject of much interesting discussion in the pages of the Bee Journal.

2. The last brood should hatch in season to give the young bees at least one good flight before being shut in for winter.

3. For late breeding, outside feeding is undoubtedly best. Mix your honey with hot water to thoroughly liquify it, in the proportion of two parts of honey to one of water, or even a little more of water. Put this in broad, shallow vessels, and place in an open shed, where the bees will be obliged to lose sight of the hives in order to reach it. Never place the honey in the apiary, in sight of the hives, as it will invariably incite the bees to robbing. A few shavings or a little hay put in the vessels, will prevent drowning or daubing. Feed until you have the desired number of young bees in the larval state.

4. Five to ten pounds per day. Feed, after the fourth day, only as much as the young bees will consume.

5. Yes; provided there is no outside escape for the heat.—Ed.]

The Wintering Problem not Solved.—Time, with his sickle, is mowing the days and hours. Seasons come and go; days and months, like the seasons, succeed each other. Summer, with all the joyous anticipations that could be produced by the warm and genial rays of the sun and change of the season, will soon give place to autumn, and this to cold, bleak winter. Thus, time is fast moving us on, and soon the little busy bees will be quieted in their domicils to feast upon their hard-earned provisions, anxiously awaiting the coming of spring. The practical apiarist will watch their needs and administer to their wants. If stores are wanting, provide them; should the queen show signs of unfruitfulness, give them another. They should have plenty of good honey, and a sufficient quantity of bees to generate heat necessary for the welfare of the colony. I am not so positive as some of our wise apiarists, that it is necessary to have all young bees for successful wintering. Forty years ago such a thing was not talked of, and then bees wintered well without much loss. The great anxiety now is about the bees dying in winter. Almost every remedy that can possibly be thought of has been prescribed through the bee periodicals; these prescriptions are not few in number, and many of them are worthless. Some bee-keepers have resorted to carpets, cushions, chaff hives, sawdust, and other materials, and still they die. For thousands of years, these poor little creatures inhabited the hollow trees and the crevices in the rocks, and down to a more modern period, salt barrels, nail kegs and box hives, and many of them very poor and open at that, yet bees wintered well.

We must do something in experimenting, to see if the cause exists in the food, or cold and confinement. I will send to each of the editors of the several bee papers a colony in an old box hive, you can put it out of doors, elevated on ½-inch blocks, and let it flicker. A. F. Moon.

Rome, Ga., July 20, 1881.

Fertilization.—The failure of so many experiments in the fertilization of queens in confinement is, I think, on account of a misunderstanding of the *modus operandi*. The queen is not fertilized on the wing, as so many assert, but after being pursued by the drone, and overtaken, they settle on the nearest object. Then, while the queen suspends herself by one leg, she is fertilized. Had Mr. Demaree known this, he might have succeeded in his experiments, as reported in the Bee Journal for Jan. 5, 1881.

E. I. Bussey.

Shellrock, Iowa, July 23, 1881.

The Rev. L. L. Langstroth's Letter.—How quick the Bee Journal comes to hand this week—on Wednesday afternoon—two or three hundred miles away! I read with interest the Rev. L. L. Langstroth's letter to A. I. Root, and two things are new to me: The wide space between the combs, and the space above the frames. I hope he will be able before long to give us his best thoughts on preparing for winter, for there are many readers of the Bee Journal who are, like myself, novices in bee literature as well as in bee-keeping. I left my bees last winter in charge of an old bee-keeper, who very often was at work on them digging away the ice that formed at the entrance. This disturbance, of course, was very bad for them last winter. How to avoid this ice formation, or to have it not interfere with the entrance, is the question. My bees had quilts filled with wool above and on the frames, and bags of chaff above those, with the summer entrance open. Nearly all died in April—a few sick ones left. I have thought of cutting out the bottom 4 inches (or length of entrance) by 2 inches inside the hive, and fitting on below the board a strip to cover this hole, and so give a place for drainage. Should I save the ice from the entrance? Do you think without a honey-board, only quilts or chaff, bees would smother if the entrance was filled up? If not asking too much, sometime when there is room, please give us some thoughts on this. Mary E. Rogers.

Flint, Mich.

[Your scheme for diverting the water from the entrance, and thus preventing its obstruction with ice, we think is feasible. Or grooves might be cut along the bottom-board, and outlets prepared for the water independent of the entrance. Unless the vapor should permeate and solidly congeal in the cushion above the bees, so as to make the brood-chamber airtight, we do not imagine it would be possible for the bees to smother. With an upper ventilation, but little lower ventilation is necessary. Last winter, the hive of one colony in the Bee Journal apiary not only had the entrance entirely closed with ice, but the ice was more than an inch deep in the bottom, completely imbedding the lower portion of the combs. The upper story of the hive was half-filled with chopped straw. This colony was among the best in the spring.—Ed.]

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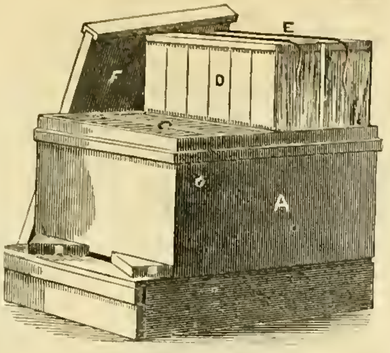

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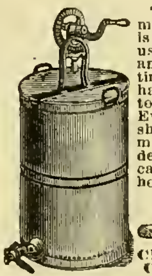

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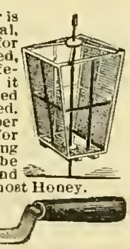

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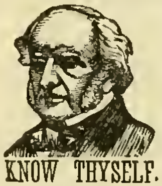

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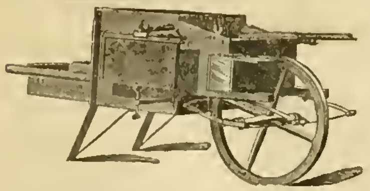

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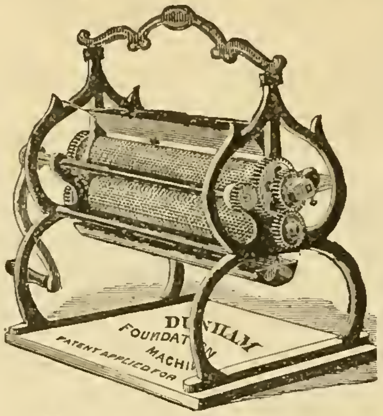

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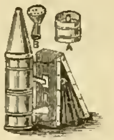

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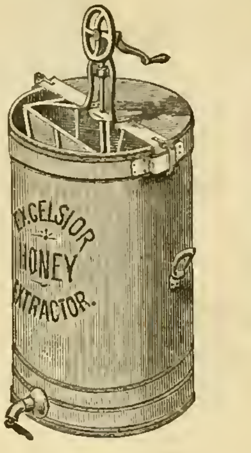
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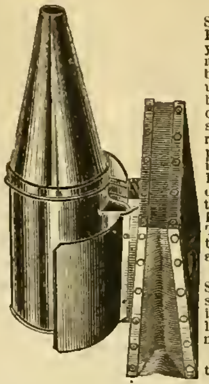

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CORRESPONDENCE.

For the American Bee Journal.

Apis Dorsata, the Large Bee of Java.

W. Z. HUTCHINSON.

The following is an extract which I have copied from a recent number of *The Youth's Companion.* Anything in regard to *Apis dorsata* seems to be of interest just now. Here is the extract:

In the year 1857 I was mate of the ship "Ellen Bird," then making her third voyage. It was in the palmy days of the sandal-wood and beeswax trade, and we were at the Island of Timor, anchored at Delhi haven, taking in a cargo.

While slowly taking in sandal-wood, log by log, I, as mate of the vessel, was dispatched on a trip inland, to hasten the collection of beeswax.

Much has been said and written concerning bees, but I think the reader will yet find something novel in a brief description of the wild bees of Timor, and the odd method by which the natives capture them.

These bees (the *Apis dorsata*) do not, like the wild bees of America and other countries, build their nests in hollow trees, or clefts in the crags. I was astonished to see hanging to the lower side of some stout branch, far up in the top of the loftiest trees, a great cone of honey comb, often 4 feet in diameter by 5 feet in length. These combs are so piled and covered in as to resist the weather completely, and are cemented to the branch with a thick, glutenous stump of very tough and compact wax. I estimated the weight of some of these large combs at 300 pounds.

During the week we were in the forest, we took, I should think, nearly 500 of these honey cones. The honey, save what we could eat with our food, was no use to us, and I have little doubt that thirty or forty thousand pounds of honey was destroyed by us in that one week, for the wax was all that we cared to take.

The first time I saw the natives take a bees' nest I thought their method of doing it as peculiar as the nest itself was odd. This particular nest hung from a limb of a tall, straight, smooth-barked eucalyptus tree, 75 feet from the ground. The trunk was a yard or more in diameter. To cut it down would have been several hours' work, even for an experienced woodsman, while to climb it, after the ordinary fashion, would have been out of the question. This is the way Benn, one of the Timor men, set to work. First, he took from his bundle a torch of some resinous wood, and lighted it. This torch he attached to his waist-cloth, or girdle, by means of a string some 10 feet long, so that as he climbed up, the slowly burning, but densely smoking torch would hang beneath him. To this girdle was also hung a chopping knife, for cutting off the comb from the branch, and a long line in a coil, for lowering it to the ground. Fola, another of the men, now brought him a strong bush rope, or creeper, some 20 feet long, green and pliable, and freshly cut from the thicket. Benn first passed one end of this creeper around the trunk of the tree, then, grasping an end of it in each hand, leaned back, and setting his feet against the trunk, he began to walk up the tree, holding fast by the brush rope, and throwing it up, by a quick jerk, after every second step. It was wonderful to note the skill with which he took advantage of the least roughness or scar in the bark, to get a hold for the loop, or for his feet. He was no more than a minute going up 60 feet. All this time he was almost enveloped in a cloud of smoke from the torch, which seemed to prevent the bees from settling on his body, which, but for his waist-cloth, was entirely bare and exposed to their stings. Arriving directly beneath the limb to which the comb was suspended, by a dexterous spring he threw himself partly over it, then drawing up his torch so that the smoke completely enveloped his body, he rested for some moments before creeping out on the branch to cut off the combs. Thousands of bees were flying about him, and thousands more were clinging in black masses to the outside of the comb. But upon Benn's holding out the torch beneath them, they all rose in a dense cloud, filling the forest with their deep solemn hum. Defended by the smoke, Benn had in a moment or two made a double noose of his smaller line around the comb, and then, with a few deft cuts of his chopper, he cleaved off the cone from the limb, and lowered it unbroken to the ground. In 3 minutes more he walked down the tree, much as he had walked up, and stood among us, none the worse for his exploit, with the exception of a few stings. Afterwards I repeatedly saw Fola, Amme, Motuleet, and a dozen others of our native squad, climb up for nests in the same way. It was their customary method.

Rogersville, Mich.

For the American Bee Journal.

How to get rid of Fertile Workers.

E. A. THOMAS.

Fortunate it is for bee-keepers that the fertile worker is of rare occurrence, and can only occur in a colony in an abnormal condition. No one should allow a colony to remain queenless or without the means to rear one from, a single day, and whoever does will lay himself liable to a new chapter of experience in bee-culture. I believe the old adage, "an ounce of prevention is worth a pound of cure," holds good in this case, and if the apiarist will take proper care of his bees he will have but little trouble with fertile workers. But the most careful bee-keeper will sometimes have a case, especially if he has a large number of colonies to care for, and how to get rid of the workers has doubtless puzzled many.

I think there is a difference in colonies, for, while some will readily accept the means of obtaining a queen, others seem bent on their own destruction, and nothing can be done with them until the fertile worker is removed. I have never had a full colony with a fertile worker, but now and then have a nucleus colony, which loses their first queen in going out to meet the drone, and so has no means of supplying the loss. After having experimented some as to the best way of getting the worker out of the colony I have concluded that the treatment given below is the only sure way to deal with "tough cases" that refuse to receive a queen or raise one.

I have had 2 nuclei troubled with fertile workers, one of which readily accepted a queen-cell, and, in course of time, had a fine laying queen. But the other would not accept a queen or start any cells from brood given them. I repeatedly inserted cells which the bees would take care of until hatched and then kill. This seemed to be a case where the bees had accepted a worker for their queen, and regarded all queens as intruders.

I had about concluded to subject them to the treatment given below, when, by accident, I discovered a worker in the act of laying. I watched her while she laid quite a number of eggs, the bees treating her with all the consideration they would a queen, and then I pinched her head. I had always thought that there was only one fertile worker in a colony, and I now had an opportunity to test the matter. In a short time after I killed this worker the bees manifested all the signs of queenlessness, and I immediately gave them some eggs and larvæ, when they became quiet and soon had cells started. I then gave them a cell from a full colony, as I rear no queens from nucleus cells, and in due time they had a laying queen.

If anyone should find a fertile worker in a colony let him try the following treatment: Shake the bees from all but one or two combs during the day, and at night, when the bees are quiet, remove the hive to a new stand, and put a new hive with the combs taken from the old colony, on the old stand. In the morning the bees will commence to go back to the old stand, and after a sufficient number have returned, give them a queen-cell and brood in all stages. The bees in a colony having a fertile worker are, of course, nearly all old bees, and so will nearly all return to the old stand. The fertile worker and a few bees will remain, which can be destroyed, or they can be united with the colony after the queen is established.

This manner of treatment reminds me of a very sure way to introduce queens. Remove the hive to a new stand and place a hive containing a frame or two of brood on the old stand. After all the old bees have returned to the old stand, introduce the queen to the young bees left in the hive. and after she has commenced to lay take the hive off the old stand and return the old hive containing the queen. The old bees will return gradually, but so few returning at a time, and they finding the queen so quiet on the combs, do not offer to touch her. This is the way I introduce imported queens, and all those that I do not wish to run any risk on.

Coleraine, Mass.

For the American Bee Journal.

Rocky Mountain Bee Plant.

R. W. KEENE, M. D.

DEAR EDITOR: Will you, or some of your correspondents, give me some information as to the best manner of raising the Rocky Mountain bee plant—when and how to sow it, etc.? I sowed some of it in drills in my garden in the spring of 1880, and it did not come up until last spring, and then only about 30 plants. From what I have seen of these few plants it beats anything for bee pasturage—the bees are on it from daylight until noon, and while everything else is parched with drouth it is flourishing. My bees have been working on it 5 weeks—if I had one or two acres of it now I would enjoy it, and I know my bees would. I also have a few plants of sweet clover that have been in bloom a month, but there has not been one bee on it yet. I had intended to sow several acres of the latter this fall, but I am afraid it will not produce honey here. What do you think of it? Give me your advice.

My bees have done well, for a beginner. I have taken 1,800 pounds of honey from 19 colonies in the spring, and made 26 new colonies. I lost 6 last winter. I use the simplicity chaff hive, with chaff pillow over the brood-chamber. I commenced with 3 colonies in the spring of 1879, and now have 45 good colonies, all in chaff hives. I have succeeded well in everything, except in preventing my colonies, run for section honey, from swarming. I have averaged 60 one-pound sections to 9 hives, which I consider a failure in box honey, for, if I could have prevented swarming, I could have obtained 100 pounds to the colony just as well. I took 107 pounds from the only colony that did not swarm. My highest yield from the extracted colonies was 230 pounds. My honey is all sold at 15 and 20 cents, at home. I hope to see you at the National Convention, at Lexington.

Versailles, Ky., July 29, 1881.

[Sow Rocky Mountain bee plant (*Cleome*) seed in the fall, either in drills or broadcast; drill 30 inches apart, with plants every 6 inches, or 6 pounds per acre broadcast, harrowing it in nicely. It is biennial, blooming the second year after planting, and continues reproductive. We fear you have hardly given sweet clover (*Melilotus alba*) a fair trial. Sow one acre this fall, harrowing it in nicely; in the spring sow ½ pound mammoth mignonette, to give bloom the first season, as sweet clover is also a biennial. We think, all things considered, it has no equal.—Ed.]

The Honey Crop.

O. CLUTE.

The white clover is over and gone, and we may look at the result as to crop thus far in the season. Bees generally were weak when, about the middle of April, spring opened. A few bees in a hive, many moldy combs, little courage either among bees or bee-keepers,—such was the condition of things. But when spring came, it came all at once. Very warm weather brought forward the early flowers as if by magic. No sooner could the bees fly out than they found both pollen and honey. The most marvelous change was at once wrought in the hives that the hard winter had spared. The good queens began to lay rapidly. There was abundance of food for the growing brood, and it came on apace. The long, warm days were musical with the merry humming. Willows, elms, maples, cottonwoods, box elders, apples, and the small fruits, especially the raspberries,—all yielded honey or pollen, or both.

With such favorable weather, and such a good supply of food, the few colonies that were alive when spring opened increased in bees with unusual rapidity. Yet it is doubtful if they were as strong as colonies ought to be when white clover began to open. Their winter depletion could not be so easily overcome. Soon after white clover opened we began to have rains, which washed out the honey from the flowers, and prevented the bees from flying. In some sections rains were so prevalent during Linn bloom that but little was obtained from that source, which usually gives such an abundant yield.

But the white clover has been quite abundant, and the rains somewhat prolonged the season, so that in spite of some weakness in the hives and the drawback of the heavy rains, a very fair harvest has been secured. We have hives that have given 80 pounds of surplus honey, in addition to furnishing the bees for making two swarms. But not all our bees have done so well. Moreover, our bees have had but little comb to build, for at the opening of the surplus honey season, we put on the second stories, filled either with frames of nice old comb, or with foundation. This gave the bees a great advantage. The time and honey they would otherwise have devoted to comb building they were able to give to nursing the growing brood and gathering honey.

On the whole, the honey crop thus far has been fair in the vicinity of Iowa City. We see reports which indicate a fair yield generally. In some sections the yield has been rather above the average. As the rains have been so abundant we may expect a luxuriant fall bloom, and a pretty good yield of honey from it. Should these expectations be realized, the present season, since the middle of April, will have been one of prosperity for the bee-keeper who was so fortunate as to bring his bees through the terrible winter.—Iowa City *Stock Journal*.

For the American Bee Journal.

Method of Obtaining Comb Honey.

G. M. DOOLITTLE.

"The best method of obtaining comb honey" has been sent me, with a request that I use it as a text upon which to write an article for the Bee Journal.

The first and *greatest* necessity, is plenty of bees. While a few bees can be made to work in the honey receptacles to some extent if rightly managed, still success, as a rule, is rarely attained unless the hive is well crowded with bees.

Plenty of bees are of no advantage unless we have them at the right time; for if they are only obtained at the end of the honey harvest, they become consumers instead of producers, thereby thwarting the object we have in view. If the harvest is white clover, we must build the bees up strong, early; if basswood, a little more time can be taken; if buckwheat and fall flowers, the bees will usually become strong enough, if allowed to take their own course. As white clover is the main honey crop with the majority, the bees should be stimulated during the month of May by feeding, spreading the brood, etc., so as to early obtain all the bees possible.

The next thing is to know just when to put on the boxes, or surplus arrangement. This is something quite difficult to decide, for if put on too early, brood-rearing is retarded, and if put on too late, much loss of honey will be the result. I have found it the best plan to wait about putting on boxes until I see little bits of comb being built at the ends of the frames and next the honey-board, with honey being put in them. When this is observable, you may know that honey is to be had, and that more room is needed. Do not wait until your bees swarm before putting on boxes, for bees often refuse to swarm, and hang idle on the hive all summer. Swarming is retarded very little, if any, by putting on boxes, and if a start is made in them before swarming, they are entered much quicker when the hive gets populous again, from the hatching of the brood.

Another important item, is not to put on too much surplus room at first. Put on a capacity of from 10 to 20 lbs., according to strength of colony, and when the bees are well at work in this, add more by spreading apart those they are at work in, and putting empty boxes between those partially full, till the full capacity of the hive is reached. From many experiments, I have become convinced that surplus room to the amount of 60 pounds is about right for a good strong colony, where worked for box honey, and 120 lbs. where worked for extracted honey, exclusive of the brood frames.

In putting on boxes I have found it a great help to have a few boxes full of comb, left over from the previous season, to place on at first, as the bees will store honey in these before they will build new comb or draw out comb foundation.

If you adopt the tiering-up plan, raise up those put on first, when two-thirds full, and put an empty tier under them; and when they are two-thirds full, raise them again. Do not keep tiering up, however, toward the close of the honey season; but as it draws near, reverse the operation, so as to have the bees finish as many as possible of those they have started in.

This tiering-up process is preferred by many of our best apiarists; but I prefer the side and top-storing plan combined, and fully believe that better results can be obtained by its adoption. In this case put on boxes as before till the top of the hive is covered, and when more room is needed, put on those at the sides. For this plan, cases and separators for holding the section boxes are a necessity. These should hold the number of boxes most convenient for the hive in use. I use a case holding two prize boxes. As soon as those first put on are capped over, they are taken off, and those partly filled at the sides are raised to the top, in place of those taken off, and the empty boxes placed at the sides every time. In doing this, I generally handle them by the cases instead of by the separate box. Keep on taking from the top, and placing empty boxes with starters at the sides, till the season draws to a close. Now, instead of placing more boxes at the sides, close up the sides with your follower, as you raise the partly-filled boxes, till the bees are shut out of the side boxes entirely. By this means you throw the full force of the bees on the few remaining boxes, which are partly filled, so most of them are finished up at the end of the season. I take off all finished boxes once a week, and consider this none too often to take off the honey, for by so doing it is not soiled by the bees traveling over it.

Thus, I have told you, in short, just how I manage my bees for box honey. One writer thinks that to move sections from the side to the top is too much work, and says that "the operation looks easier on paper than he finds it to be in reality;" and another writer wants me to give an "article whose points are based upon reason, and not upon my personal experience." When I write I give *things* as I find them, and *methods* as I *use* them, and not high-sounding theory, to tickle the ears. If any do not see fit to work as I do, let them work as they choose—this is a free country.

Borodino, N. Y.

For the American Bee Journal.

Another Letter from Frank Benton.

FRANK BENTON.

By the courtesy of Mr. D. A. Jones, of Beeton, Ontario, we are able to present to our readers another interesting letter from Mr. Frank Benton:

Friend Jones: They have me behind bars and locks, with plenty of guards about! I am not alone in my misery for, among the 30 other passengers, is Mrs. Fluhart, who came on the same Austrian Lloyd steamer, having been on a journey to Palestine. What are we charged with? Why, we touched the Syrian coast, and quarantine has been established here, since a few cases of the terrible disease known as the "black plague" have been reported from Mesopotamia (Bagdad) a thousand miles from Beyrout, or fully 40 days journey from any port of the Syrian coast. We have but 3 days to stay, and get along very well since food is daily brought us from our friends outside. After not having seen my wife for over 5 months, I am now permitted to speak to her through a small window, she remaining at a distance, and I have not shaken hands with her yet. We have had visits from the ladies of the American school, and many of the pupils, also, but they are "distant calls."

I brought with me, from Syria, a lot of bees, from Mt. Lebanon, and they are also in quarantine (that is, nights, for I have "stolen a march" upon the officers; as soon as the hives had been ranged in the shade of a wall, I opened the entrances. To-day one colony swarmed, and the swarm clustered on a tree in the outer inclosure of the quarantine. Everyone outside of our part, not being quarantined, left; but by permission of the physician in charge, I went out and hived them. As things can be passed in for us, I sent home for empty bee hives, and have been transferring! I have had about 30 spectators inside, and those having come to see friends, by climbing up outside, could look over our walls.

My letter, mailed at Suez, probably prepares you for the statement that I have now no living specimens of *Apis dorsata*. In that letter I explained that my severe illness (malarial fever, or, jungle fever, as they call it in India) just before leaving Ceylon, prevented absolutely my caring for and preparing for shipment the bees I had obtained, and my weakness while on the steamer, as well as lack of facilities, rendered it impossible to remedy the matter. When on the Red Sea we experienced a very sudden change of temperature, from the hot breezes of the deserts to, what seemed to us, a cold northern blast, and I found myself again down with the fever. Most of the passengers suffered, and many who were strong and well before became suddenly ill, not from seasickness, however, for the sea was not rough.

At Suez I was too weak to go on shore, so as to come by rail to Alexandria, and avoid, thereby, any quarantine here, hence I went on to Port Said, but could get no steamer for Alexandria for some days, although I could get one for Beyrout the same day. I chose the latter route, since I thought I might have to wait several days in Alexandria also, if I did not connect with the English steamer from there; then, too, I supposed I would be sure of an English steamer each week from Beyrout to Larnaca, but upon my arrival in Beyrout I found, to my surprise, that this line had discontinued for the present sending any steamers from Beyrout to Cyprus, and I must wait some time for the Austrian Lloyd for Larnaca.

As soon as I gained a little strength in the bracing air coming down from Mount Lebanon, with its snow-crowned peaks, I went out in search of bees. Some of the colonies I bought were obtained of a man you bought from last year. These I brought in a boat to Beyrout, thinking they would arrive in better condition, but it was very trying to see those stupid men (Arabs and Turks) persist, after repeated caution and when I carried a jug of them myself to show them how, in turning them all ways but the right one. After many delays, much talk, and no small number of lies on the part of the officials at the custom-house, as well as some *backsheesh*, I got the colonies on the steamer, and now they are here, and, strange to say, a few escaped with whole combs.

If anyone thinks that it is an easy matter to buy up, prepare, and transport bees from these lands to our far western home, he would need but one such trip as my last to convince him to the contrary.

As to the great East Indian bees (*Apis dorsata*) I can say they were alive when I reached Beyrout, but seemed to have withstood a trying journey, so that, when I let them out, they dwindled. I could not prevent it, and at last there were no more left. It would have been interesting to have experimented with these bees, but I doubt greatly their excelling, if they equaled, *Apis mellifica*. I have still some bees of the species *Apis florea*, and at least one queen is alive. These are very small bees, and not of much value. One thing very much surprised me, namely, the wonderful tenacity of life the 2 races just mentioned have shown. Under the same conditions *Apis melifica* would, I believe, scarcely have reached alive ½ of this long journey of 6,000 miles from Ceylon.

LATER—OUT OF QUARANTINE.

We are busy getting things fixed up; keeping house in the old mansion, but could only get the promise of it for one month, since the owner thinks some of coming to Larnaca to live. You know it is owned in Nicosia.

I found the bees in fine order, with some increase. My dear wife has done wonderfully well with them; she has hived all the swarms, etc., given them empty combs, and has smoked the surplus combs with sulphur, so they are in good order, and I will soon have them covered with bees.

Those "pesky" Greeks said: "That American has now gone, and we hope steps will be taken to prevent his returning to our Island and sending away the few bees left in Cyprus." But there is no fear, for our work here has interested those who, by reason of their positions, could counteract any petitions sent to the Government.

Frank Benton.

CONVENTION NOTES

Read before the Lewisburg (N. Y.) Scientific Soc.

Do Bees Puncture Grapes?

PROF. F. W. TUSTIN.

The question as to whether the honey bee, *Apis mellifica*, punctures and tears open the skin of fruit, and especially that of the grape, has called forth considerable discussion. That a matter apparently so simple should, for so long a time, be in an unsettled condition, seems a little surprising.

Bee-keepers generally deny that bees do any injury to sound fruit, and as they doubtless best understand the habits of their favorites, they make a strong argument in their own behalf.

Fruit-growers, on the other hand, earnestly claim that bees do them great harm. They find these insects industriously engaged in sipping the juices of bursted grapes, and in their vexation over the lost fruit, and without much discrimination, they charge the whole work—both the rupturing of the skin, as well as the extracting of the juices—upon the busy yet harmless insect.

Here we have the chief point of interest in this question—the fruit-grower, from personal considerations, demanding that the bees shall be destroyed or kept within bounds;—the apiarist denying that his bees do any harm, and that therefore they should not in any way be restrained.

The subject was assigned to me to report upon before the society, at a time when I had not the opportunity of giving it any special attention, and yet in a general way I have observed for several years that bees have been very numerous about my vines, and that many a grape was robbed by them of its sweet juices and rich pulp.

That bees have increased in numbers and that they are fond of feeding upon the luscious contents of a ripened bunch of grapes are well admitted facts. The food most natural to the bee is the fluid secretions contained in the nectaries of various kinds of flowers, and the pollen dust of the anthers. But when flowers are scarce, or when they have passed their season—since the bee must live and gather honey all the day—its instinct leads it to other saccharine substances, and on this account, doubtless, it takes to the ripened peach, grape, pear, and the like.

The bee is furnishd with organs, enabling it readily to gather its food. In the first place it has a double stomach, or, more correctly, two stomachs, the first of which serves as a receptacle or pouch for the fluid matter which it gathers from the flowers; this fluid matter thus gathered and stored up does not appear to differ from honey. In this honey-stomach no digestion of the honey is known to take place, and it seems to serve the only office of holding the gathered honey, until the bee returns home. The coatings of this stomach being furnished with the power of muscular reaction, the honey is readily emptied into the cells of the comb.

To extract the honey-fluid from the flowers and introduce it into this stomach, the bee is furnished with what may be regarded as an elongated tongue formed by a prolongation of what with us answers to the lower lip. This tongue is flexible, and capable of a certain degree of extension. It is not a hollow tube with a suction arrangement at the end, to enable the bee to suck the fluid of the flower into its stomach, as has commonly been supposed. But in gathering honey the bee inserts its tongue into the nectary of the flower, and whatever honey may adhere to the surface of the tongue is introduced into its mouth and ultimately finds its way into the stomach. It is in this way that the bee gathers its honey. This tongue is a very delicate organ and has no puncturing or penetrating power.

To further enable the bee to accomplish its work the mouth is furnished with "feelers" or palpi—four in number. These are for the insect, its organs of scent. There are, besides, 2 strong mandibles or jaws, furnished with 2 teeth. These parts are not used, as in vertebrates, for masticating the food, but for a variety of other purposes. For instance, sometimes the parts of the flower may be so compressed that ready access to the nectaries cannot be obtained, and it may be necessary for the bee to push apart or to cut away portions of the floral envelopes, so as to gain the honey. And in the work of preparing a place for the building of the nest, or the making of the comb, it may be necessary to break away or to cut through hard substances. In the accomplishment of these things the mandibles furnish the requisite power, while the palpi or feelers tell the bee what is to be done, and how and where to do it.

That these mandibles have, for the size of the insect, considerable power, may be seen by considering for a moment some of the genera allied to the common honey bee.

Thus, instances are known where the humble bee has been shut up within the corolla of flowers, and he has cut his way through the walls of his prison. There is the so-called boring bee, which, with its mandibles, often skillfully cuts its way for a considerable distance through dry timber. Then the mason bee detaches and gathers together grains of sand and by the aid of a mucous secretion works these up into cells of an almost imperishable kind. So that the mandibular power of the bee family is quite conspicuous, and it is a power to be exerted according as the exigencies of the case may require.

The sting of the bee is an organ in its structure and in its use quite different from the mandibles. It is situated in the posterior part of the body and is a finely pointed instrument with an open tube extending along its entire length. At the root of the sting is a little sac in which is contained the poisonous fluid, which the bee injects through this tube into the wound which he has made. The object here is to provide the insect wiih the necessary means of self-defense when it is exasperated or attacked, and, so far as it is known, it is only under these circumstances that the sting is used. It is strictly an organ of defense, and in no way used as a means to assist in the gathering of the food. When the sting is used it simply punctures the surface to which it is applied, unless that surface be powerful enough to resist the fine point of the sting. So that with reference to the question before us the opinion is generally held that, in their ravages upon grapes, if bees ever do tear open the skin, they certainly do not and cannot do this with their sting, this organ having no power to tear or cut open, but only to penetrate or puncture easily yielding substances.

But it is not certainly known that the bee does ever tear open the skin of the grape. For what has been stated, its mandibular power is without doubt sufficient to enable this to be done, and that it is possible may not be doubted. But there is want of evidence that the bee ever does this.

I have never seen a bee in the act of teartng open the skin of a sound grape, although I have seen repeated instances of one, and indeed several bees together, luxuriating upon the sweet juices of a Delaware or a Concord.

And so far as I have been able to correspond with them, I find that the authorities upon this subject quite unanimously agree that there is no evidence against the bee that it tears open the grape, although this assiduous little honey-worker is ready to appropriate the sweet substance of the grape, the peach, and kindred fruits, when once the skin has been broken from any cause, whether on account of a defect in the growth of the fruit, or through disease, or by reason of an excess of juices in the fruit whereby the skin not being able to yield sufficiently must burst, or through the sting of the wasp or other insects.

Prof. A. Packard, of Brown University, says that though he has no evidence that they do so, yet his "impression is that bees will puncture and bite open grapes," but this impression, he says, is founded simply on this, that he sees "no reason from the structure of the mouth why they could not do so."

But the observations and experiments of the Secretary of the Cincinnati Entomological Society are more to the point. He says that if you lay a ripe bunch of grapes with sound berries in front of the hive, with the entrance thereto contracted to ¼ or to ⅛ of an inch, so that every bee going out or coming home will have to run over or around the bunch, you will notice that they try their very best to attack the grapes, while every berry remains intact. He found the same true of a sound ripe Bartlette pear. After he had satisfied himself of the inability of the bee to penetrate the skin of the grape, he then punctured each berry with a pin, and in an hour or two nothing remained but the skins and the stem.

Dr. S. S. Rathvon, editor of the *Lancaster Farmer*, says: "I have grown grapes (Isabellas, Clintons, Concords, Hartford Prolifics, Marthas, and Delawares) upon my premises for 30 years, and yet I have never observed a bee cutting or tearing open any of them. From the organic structure of the mouth of the bee it is very probable that they can lacerate skins of the more delicate grapes, and the testimony from intelligent sources seems to be so strong that I do not feel like ignoring it, and yet I feel that many observations in that direction are too superficial to be entirely reliable I have not conversed with a single person who says he ever saw a bee in the act of cutting open grapes. But the grapes are found ruptured, and the bees do work upon them, and that seems to be the bulk of the testimony."

But the best authority, Prof. A. J. Cook, of Lansing, Mich., says: "From close observation for many years, from careful experiments seemingly crucial, and from a vast amount of testimony, I feel sure that if bees ever attacked sound grapes it is exceptional; some scientists say that they do at times—so that I cannot say they do not. But I am sure it is very rarely, if ever, the case. I have lived for several years in the midst of vineyards, and where bees were very numerous, but I never saw bees tear open a sound grape. If bird or wasp or disease break the grapes, and the bees find no other stores, they will lap up the oozing juice. At such time I have broken grapes, and when they were being supped by bees, I would remove them and place sound grapes in their stead, when the bees would at once stop work."

Our conclusions from observations, and from the testimony of others are then—

1. That the bee cannot puncture the skin of the grape with either its tongue or its sting.
2. That it is possible that bees may tear open grapes from the fact that they possess the necessary mandibular power.
3. We believe that they rarely, if ever, do this, and that their depredations upon grapes are confined to cases where already from other causes the skin has been ruptured.

The complaints of bees destroying grapes and other kinds of fruit are more frequent than they were 30 years ago, and possibly for the reason that in later times the trees and shrubs and plants from which bees have been in the habit of gathering their honey have been relatively decreasing in number, while at the same time the culture of bees has been increasing all over the country. The remedy for such complaints should be found not in destroying the bees, nor in advocating their restriction, for honey we must have and it is quite as desirable to many persons as is fruit. The true way will be for the bee-keeper to provide, in places conveniently near the hives, the necessary clover and flower-bearing plants from which his bees may derive their food.

Imbued with its instinct of industry, the bee will not be idle. It will gather its stores from flowers if it can; from various fruits, peaches, grapes and pears, if it must.

For the American Bee Journal.

Improvement of the Race of Bees.

REV. E. L. BRIGGS.

Dear Editor: Some years ago I addressed an article to the Bee Journal, proposing a plan to improve the Italian race of bees, just as we have improved our races of hogs, cattle, and horses. And I am extremely glad to see your correspondents falling in with this proposition, and advocating the plan as not only possible, but one which ought to go into immediate effect. Therefore, in order to inaugurate the work, I propose the following prize for the best tested Italian queen, to be exhibited at Wilton Junction, Iowa, Tuesday, Sept. 20, 1881, at 2 p. m. Major Allen, A. N. VanCamp and Mr. Picket, of this county, being the judges in the case to award the prize. These 3 gentlemen are all practical bee-keepers, and competent judges, and any one can write to either for information concerning the responsibility of the writer, directing the letter to Wilton Junction. I also beg leave to refer them to you for any such information, having formed a very pleasant acquaintance with you at Muscatine, a year ago. If you think the plan one which will help to find the best in the market, I wish you would add a word in the Journal to help forward the work.

TEN DOLLAR PRIZE.

I wish to offer, through the Bee Journal, the above named prize for the best Italian queen, home bred or imported, sent to me before Monday, the 22d day of August next, out of 6, forwarded to me by any 6 different breeders, each sending one tested queen, not to exceed one year old, this year's rearing having the preference. Said queen to excel in the following respects:

1. The largest in size herself, and producing the largest worker progeny.
2. Producing the brightest colored workers.
3. Her progeny being the most peaceable in handling, and adhering to the combs the closest.
4. As far as it can be ascertained this fall, the most prolific breeder, and honey-gathering worker offspring.

I will pay each breeder the common price, also, which he charges for a tested queen, providing she shows any of the qualities named above, in a superior degree, reserving the right to return her if she falls below the average standard of queens in my home apiary at this place.

Any queen-breeder who accepts the above proposal, and becomes a contestant, to notify me by postal as soon as possible, at the same time announcing when the queen can be forwarded, when I will notify him by return mail if he can be accepted as one of the 6 to compete for the prize.

The report of the committee, and payment for queens, and $10 prize, to be made at the North Western Bee-Keepers' Convention, to be held at Chicago, Oct. 25 and 26, 1881.

It will be noticed that the breeder will get the ordinary price for his queen, and the ten dollars extra, if she proves to be the best. But none need send, except such as rank up with the best in the market.

Wilton Junction, Iowa.

☞ The North Eastern Wisconsin Convention meets at Pewaukee, Wis., instead of Berlin, as at first announced. It meets on Oct. 11 and 12, 1881. Those in that vicinity should make a point of attending.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR,

CHICAGO, ILL., AUG. 10, 1881.

Exhibits for National Convention.

To all Bee-Keepers, fraternally greeting: I have been appointed a committee to receive exhibits for the National Convention, and accept the trust. Persons sending articles for exhibition will please prepay freight or express charges, and send plain directions how to be returned; if desirous of selling them, attach a card stating the lowest price in plain figures. I will cheerfully and impartially attend to exhibiting queens, bees, hives, and other implements for the apiary, of any kind, free of charge. I will exercise all due care and diligence, but will not be responsible for losses of queens or bees by death or accident. I earnestly hope that all who can possibly attend this Convention will do so, and see the beauties of the far-famed "Blue-Grass Region," the "home of Clay" and other statesmen, and its fine stock of every description. We cordially invite you to come, thus filling a double mission. I shall feel grateful to all who have any intention of coming, to have them state the fact on a postal card addressed to me, and will cheerfully answer all inquiries to the best of of my ability. W. WILLIAMSON,
Vice Pres. for Ky. N. A. B. K. *Soc.*
Lexington, Ky., Aug. 1, 1881.

We cannot refrain from congratulating the North American Bee-Keepers' Society, upon the choice of Mr. Wm. Williamson as a special committee to look after the interests of exhibitors. In him are combined all the essentials necessary to a satisfactory execution of the trust—discriminating, unprejudiced, energetic, honest, and with all the courtesy that distinguishes the true gentleman. Exhibitors can trust to his judgment. He will leave nothing undone to make of the Convention, as it richly deserves to be, a complete success.

◆

Which Are the Best Bees?

Mr. J. A. Johnson, Indiana, writes us as follows:

Which do you consider the best bees for honey-gathering, Italian, Cyprian, Syrian or Hungarian bees? I want the best queens to breed from in 1882. I have no knowledge of any only Italians. Could you not give us an article on the different races of bees now in the United States?

We yet consider the better strains of Italians the best bees in this country, and that they will be the source from which will be bred the "coming bee." They possess so many desirable points of superiority, that it will be a difficult matter to supersede them with any of the newer races, about which there is much difference of opinion among careful and observing apiarists. We have not sufficiently tested any of them to hazard a positive opinion from personal knowledge.

Regarding the Cyprians (from which much was expected), we have some very damaging reports. They are said to be very fierce in disposition, restless on the combs, easily aroused, and display no superiority to the Italians as honey-gatherers. Some of these objections are undoubtedly based on prejudice, or result from insufficient investigation.

The Syrian bees appear to have met with more favor, though many bee-keepers are unable to appreciate any superior traits. The August number of the *Bee-Keepers' Guide* says:

Holy Land queens look like queens reared from hybrid Italians, and act like black queens. They are always scared and running when you open the hive.

We have one colony of Syrians in the BEE JOURNAL Apiary. The queen is large, well-developed, and quite slow and deliberate in her movements. We have reared several very promising daughters from her, and all present the same general characteristics of the mother, and nearly approach duplication. They bear no resemblance to the hybrid Italian—in fact, not so nearly as the pure Italian does. The body is nearly a maroon-color, the segments being very distinctly cut, and a polished dark-mahogany color. The mother queen is certainly very prolific; the daughters are quite young yet, and were reared for the purpose of crossing with Italian drones. The workers, however, exhibit the characteristics mentioned in the *Guide;* they have a quick, nervous, hurry-scurry movement, are smaller than Italians, and much more ready to repel intrusion. They are very good workers, and we find they become a trifle more amiable with frequent gentle handling.

Of the so-called Hungarian bees in this country, we have not sufficient data for arriving at any conclusion unless that they are a hybrid, produced perhaps by mating black or brown queens with Italian drones. As a race, we have no confidence in them.

With our present limited knowledge, and in the absence of well authenticated proof of superiority in other races, we would dislike advising any apiarist who now possesses a good strain of Italians, to make a change; but, rather, to make their improvements in the pasturage.

◆

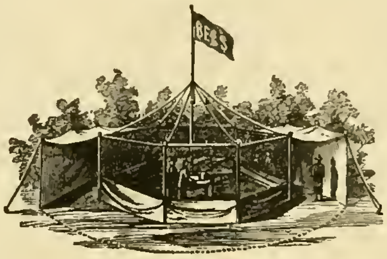
Management of Bees at Fairs.

Dr. J. W. Hudson, of Mayesville, S. C., makes the following request:

DEAR EDITOR: Please to give us full directions for showing, handling, driving and the general management of bees at exhibitions and fairs. Give all the details, for many of us have never seen bees on exhibition, though we may know how to handle them in our own apiaries. I know of no one so capable of giving instruction in this matter as yourself, who have seen it done so often, both in this country and in Europe. Give us the practice in both countries, and your opinion as to the best. I might have placed my bees on exhibition at our recent agricultural fair, had I known anything about the management of them at such places. I do not know whether they should be confined in their hives or allowed to fly; in a word, I know nothing about it.

In the BEE JOURNAL for Feb., 1880, we urged that manipulations with bees be instituted at fairs, and bee and honey shows would be the most attractive features of State, County, and District Fairs. There are many good reasons for introducing such, but the chief one, perhaps, is that those who produce honey for the market may be induced to present it in the most marketable shape; for the old slip-shod manner of production *must* pass away, and the new methods and new ideas of practical management must take the place of the old and undesirable ones. As we have so strongly advised public manipulations with bees, the question is a natural one: How can it be done?

When we were in England, in 1879, we found that the most attractive features of the fairs were the public manipulations with bees. There they had a large tent, as shown by the accompanying engraving. The inner circle was inclosed by mosquito bar or netting around the sides and about 8 feet high, leaving the top entirely open. Around this circle is a passage-way, covered with canvas above and outside, about 8 feet high, and 6 feet broad; in this inclosure the audience assemble to witness, through the netting, the manipulations with bees—driving the bees from a skep or box hive, and finding the queen and exhibiting it to the audience. Here, also, a lecturer was arranged for every hour, who gave a lecture for half the time, leaving the other half hour for the manipulations. The committee there charged 6d. (about 10 cents), for admission, every hour.



Tent for Publicly Ezhibiting Bees.

While in Great Britain we gave 8 half-hour lectures in this tent; each time the inclosure was full of eager listeners. Two of these were delivered at the Scottish Bee and Honey Show, at Perth, concerning which the Dundee *Advertiser* remarks as follows:

The manipulating tent was a scene of great interest during the show. It is of octagon shape, the operator standing in the middle, while the public feel secure under the protection of an intervening gauze screen. Driving bees from a straw skep and transferring their combs to a bar-frame hive, were hourly operations, and never failed to strike with astonishment the spectators, who stood aghast at seeing a human being unprotected turning up a hive of bees, and handling them as if they were blue flies.

Mr. Thos. G. Newman, editor of the AMERICAN BEE JOURNAL, was present during the first 3 days of the show, and gave lectures on American bee-keeping, which were very interesing, and were well received. The Society presented to him a medal as a souvenir of his visit to this country, and for the valuable services he has rendered to the present session of the Society.

The driving competition then commenced, when 6 competitors entered the list. After the straw skeps had been balloted for, they were turned up one after another, and by gently tapping on the sides of the hive the bees were compelled to leave their homes with their stores of brood and honey, and to take refuge in an empty skep placed above. The queens were captured and exhibited to a large assemblage of spectators.

For "showing" bees, observatory hives were used—those having glass sides, something like the Worrall hive, through which the bees may be seen at work—the hive being inside the exhibition building, with a tube covering the entrance, and running through the side of the building, giving free passage, in and out, for the bees. Sometimes, a glass box inclosing each frame, arranged like leaves of a book, with a common entrance to all of them, from the tube running through the side of the building, is made to exhibit bees. This gives an opportunity for thorough examination of the whole colony.

Liberal premiums should be offered for the best exhibits, and these premiums should cover a large variety of special points in order to make the competition the more lively and attractive, as well as to enhance apiarian science in general.

Last year a small exhibition of bees, honey, and implements for the apiary, was made at the St. Joseph, Mo., Exposition. The superintendent of the apiarian department for this year, R. S. Musser, Esq., has written to us as follows:

The exhibits of last year have worked up quite an interest in progressive apiculture in this vicinity. Many then, for the first time, saw the new apiarian improvements, single comb sections, comb foundation, etc., and had never heard of planting anything for their bees to get honey from. The finest honey in the world is produced in the Missouri Valley, from Yankton, Dakota, to Jefferson City, Mo. If the various Fair Associations in this valley would give some encouragement to this industry, a large amount of honey would be gathered in this valley, and put upon the market in first-class style. Not one cent in premiums was offered last year, but this year over $120, besides diplomas are offered, and next year I know we can double the amount.

The fair for 1881 will begin on Sept. 5, and closes Oct. 10, and promises to be a very interesting occasion. The following is the list of premiums in the apiarian department:

Display of Italian bees, 1st premium, $5; 2d premium, $3.
Display or black bees, 1st premium, $2; 2d premium, $1.
Display of queen bees, $3.
Display of imported queen bees, $5.
Display of bee-keepers' tools, implements and fixtures, $5.
Best display of honey in comb, $4; 2d premium, $2.
Largest assortment of seeds for honey plants, $2.
Exhibition of a swarm of bees in a hive, including their handling and best method of subjugation, to be practically illustrated on Friday, Sept. 9, 1st premium $5; 2d premium, one tested Italian queen, offered by D. G. Parker, valued at $3.
Honey extractor, $2.
Honey knife, diploma.
Bee smoker, diploma.
Atomizer, diploma.
Bee feeders, diploma.
Comb foundation, diploma.
Felt blankets, for covering brood-frames, diploma.
Bee veils, diploma.
Gloves, rubber gauntlets, diploma.
Sections, all in one piece. diploma.
Sections, dovetailed, diploma.
Wax extractor, diploma.

SPECIAL PREMIUMS.

For best display of comb honey, $5.
For best 50 pounds of comb honey, in 1 and 2-pound boxes, $5.
Pay for best 30 lbs. of comb honey, exhibited in 1 or 2-pound boxes, $15.
For the best and largest display of comb honey from any one apiary in the Ninth Congressional District of Missouri, one copy of *Daily Herald* for one year.
Second best display, one copy of *Weekly Herald* for 2 years.
For the largest and best display of bee-keepers' tools, implements, and

seeds for honey plants—exhibited by a dealer in the same, $10.

For the best display of comb honey, exhibited by a lady from either Kansas, Nebraska or Iowa, $20.

For best display of comb honey, exhibited by a Missouri lady, $20.

For the second best display of comb honey, exhibited by a lady, a patent dough kneader and patent biscuit and roll cutter, for family use.

The managers of the St. Joseph Fair have, by their foresight, given a grand example for others to follow, and we hope the time will very speedily come when apiculture, so long neglected by the managers of fairs, will receive its due share of their attention.

AMONG OUR EXCHANGES

MISCELLANEOUS.

Bees Within a Statue.—The *Bienen Vater* says:

In the town of Wernstein, Upper Austria, there has stood upon a very high stone base, from time immemorial (life size) a statue of a madonna, constructed of clay. Quite a long time the supposition had gained ground that within it was a well-regulated and rich colony of bees. But no one seemed inclined to disturb the little honey gatherers, within their singular asylum. A few days ago, workmen commenced to renovate the old and venerable statue, to save it from ruin, and first they had to search for the abode of the bees. How great was their surprise when they found the entire hollow space within filled with the richest of comb honey. Two large water tubs full of honey were taken from this statue. A tavern-keeper, who undertook to perform this job of removing the honey, received such a treatment from the angry bees that he had to go to bed immediately. Now, people remembered that this colony had sent out 3 swarms last fall, of which 2 were captured, but the third went to the woods. Those bees had made the statue their home for over 7 years; from this one can judge of the wealth of honey found.

The Honey Crop in N. Y. and the East.—The *Bee-Keepers' Exchange* remarks as follows on this subject:

We are asked, what the prospects are for good prices in the honey market. We hope to see prices high, but doubt whether they will be. True the number of colonies is few, but the yield in most quarters is enormous. Throughout Central New York, and Vermont, the crop will be very large per colony. Very favorable reports come from various and widely separated localities. Different from many articles, small production of honey does not and will not advance prices very much. We counsel our readers to sell their crops at home as much as possible.

Rate at which Honey is Gathered.—Mr. L. C. Root, in the *American Agriculturist*, gives the following figures on this interesting topic:

I shall commence here to give, as I have done heretofore, the weight of honey taken from a selected hive at different dates. We have chosen for this purpose one of our best Italian colonies, and have given it every advantage. The queen was very prolific, and choicest combs have been furnished so that she has been able to deposit eggs to her utmost capacity. The weather has been favorable to rapid increase. The bees are in a two-story large Quinby hive, which has been supplied with 32 combs, from which honey is to be taken with a honey extractor. I shall not only give the weight of honey as it is taken out from time to time, but also give the gain at intervals of a few hours, on different days, which will prove of interest to the reader.

The first honey was extracted June 25th, when it was all removed from the entire number of combs. The amount was 96 lbs. June 26th was the first warm, fair day for over a week, and during the day they gathered over 20 lbs. In sections where the fall pasturage is not abundant, I would caution bee-keepers to not add boxes too late in the season, as well as too use care in extracting too late. Many who are inexperienced may extend this so far, as to fail to leave sufficient stores for winter.

The possibilities of bee-keeping are not fully comprehended even by some of our active bee-keepers. I do this to encourage a more thorough investigation of the best methods, which will so surely lead to results almost incredible to those unacquainted with modern bee-keeping.

Midsummer Bee Management.—The *Rural New Yorker* contains the following article on Summer Management;

In case of scanty pasturage for bees at this season of the year, there is great necessity for providing them with food in the hive. The feeding should be done regularly after sunset, and as they are more liable to be vicious when the fields fail to supply them with honey, the bees should be smoked sufficiently to keep them quiet; and then, as always, they should be disturbed as little as possible. The practice of feeding, either in Spring before flowers bloom or in the Summer intervals during the absence of the best honey-producing flowers, is a wise one, as it keeps the bees in good condition for the work before them. Cheap honey is recommended by some as a good food, but "A" sugar reduced to the consistency of honey, is quite as good. There is but little to be said in favor of feeding grape-sugar and glucose.

Honey which is removed from the hive in hot weather is apt to be inhabited by the moth worm, which hatches from the eggs deposited in one way or another by the bee-moth. Just how, or when, this is done is not known, but it is not at all unlikely that the moth finds her way into the hive and there lays her eggs, though some say she deposits them on the bottom boards of the hive and then they are carried inside by adhering to the feet and legs of the bees. If honey taken out is to be kept in boxes during the Summer, it should be closely watched and at the first appearance of a fine whitish powder on the combs, it should be removed by fumigating with sulphur. It is well to smoke combs from which the honey has been extracted.

It is important to keep the light-colored (basswood or clover honey) separate from the dark-colored, such as buckwheat honey. The apiarist who expects to get good prices for his honey will be careful not to let these two kinds go to market in the same box. White honey, though it be but soiled with dark, will not command a good price. However, nice buckwheat honey, though not commanding as large prices, is yet a source of much profit, inasmuch as, in some sections, a good supply is obtained after the white honey plants have failed. The hives should be protected from the intense heat of the sun during the heated term, though early and late in the season it is essential that the hives be exposed to the warm rays of the sun.

August is a good month for Italianizing, as the queens can be obtained quite reasonably then, and good Italian workers will be ready for the next season. Every effort should now be made to build up the colonies with young bees, even if feeding is required. Colonies well prepared will stand the Winter much better.

Glucose.—Mrs. L. Harrison, Peoria, Ill., writes as follows in *Gleanings in Bee-Culture* on glucose and its manufacture.

Friend Root:—I extend unto you my right ☞ in token of approval of your present position on that vexed glucose question. Your former one was always a sore trial to me, for I was fearful that the *money* that was in it, so warped your better judgment that you could not see it in its true light. When you invoked the blessing of Heaven upon the Buffalo Sugar Co., it was a dose too great for me to swallow; and the longer I chewed the bigger it got.

Hamlin, who is the principal member of the Buffalo Co., has large works here (Peoria, Ill.), and has recently purchased an extensive tract of land in the vicinity of Des Moines, Iowa, to erect glucose works there. He has acres upon acres of lime-kilns to manufacture that compound for his manufactories. He knows no God and no Sabbath. His employes are not freemen, but slaves, compelled to work every day in the year, with the eye of a watchman upon them lest they cease from their toil, and watchmen over watchmen, with small wages; and when he walks through his vast works, an armed guard protects him. The smoke from those vast chimneys never ceases, nor does the deadly waste that pours into our magnificent river, to be the certain death of the finny tribe. The fumes that are wafted over our city, from the boiling vats of corn starch, containing deadly chemicals, can be compared to nothing else than to pens where a million pigs are kept and fed on distillery slops. We who have braved the privations of frontier life to obtain a home have no redress—for there are millions in it. Car-load upon car-load of lime, nitric and sulphuric acid are daily used in the manufacture of glucose. There have been syrups sold in this city that have eaten a hole in a table-cloth! This company have bought *chemists* as well as nitric and sulphuric acid.

But the people are awakening. They are inquiring why they feel so strangely after eating sugar and syrup, and what makes the little one's lips so black, as if it had been licking the ink-bottle after its meal of bread and syrup—clear as honey.

Brother Root, you are a busy man, I know; but take time, and if you can't get time on a week day, do it on Sunday. Tie up your handkerchief full of your best Buffalo sugar; sit down by a pail of water and wash it; and when you are through, tell us what you have left, and whether the water is sweet or not,—and what kind of stuff is left in your handkerchief. Be candid, and tell us all about it, if it does hurt worse than any bee-sting you ever had; and whether you would like to give it to Blue Eyes or the baby to eat.

I can not call down the blessing of Heaven upon the Buffalo Co.; but may Almighty God bless good father Langstroth, and continue unto him the use of his mental powers! May he long stand upon the watch-towers of this great industry, that he has given his lifetime to promote, and run up the signals of alarm in full view of his *bee children*, warning them of the vagaries of such impulsive persons as A. I. Root and— MRS. L. HARRISON.

Peoria, Ill., July, 1881.

Bears Attacking Bee Ranches.—The *Bee-Keepers' Magazine*, gives the following account of bears attacking bee ranches in California:

The business of a California bee-keeper is not always one of giddy pleasure, nor of sweet and enjoyable tranquillity. Not only have the apiarists of that otherwise favored land had their hopes blasted by a short crop of honey, but also the great hungry mouthed depredator, known as the grizzly bear, comes prowling at the dead hour of night, when all is still, save the gentle murmur of the bees in their tranquil habitations, or the doleful screech of some bird of wisdom in the distant tree-tops—then he comes and seeks the bee-yard. His ways are mysterious and not often inquired into by the apiarist. Still, withal, when patience ceases to be a virtue, then his thieving highness is dealt with in the following manner by the bee-keepers of California:

"Mr. Rowell, of Santa Ana, who owns a bee ranch in Trabuco canyon, and who has suffered the loss of several colonies of bees from the depredations of bears, determined to lie in wait for the unwelcome visitants, and succeeded in shooting a large grizzly, who came for his regular meal of (bee) bread and honey. The bee men are jubilant over the killing already of three or four of these grizzly knights of the mountains, but say there are a few more of the same sort. Mr. Rowell has regaled the epicures of Santa Ana with a toothsome steak from bruin's carcass, which had been made as sweet as honey and honey comb could make it."

Are Cyprian Bees Ferocious?—This question Mr. C. A. Abbott, editor of the *British Bee Journal* answers thus:

We are sorry we cannot confirm the good character for gentleness given to the Cyprians. Such character came with them when they were exhibited at the Crystal Palace Show, and those present, when they were handled on that occasion, were so impressed with their ferocity that their 'purity' was doubted, and reference made to the authorities at the British Museum. Since then we have had considerable experience with these bees, having received some direct from Cyprus, and they have invariably proved most fightable; the Syrians may be put in the same category. As workers and breeders they are both good; but the best workers we have ever known are the cross from the Syrians. They, however, are not easily subdued.

Experience while Uniting Swarms.—In the London *Journal of Horticulture* Mr. W. Riatt, gives the following experience while uniting swarms:

While uniting some swarms a rather rare circumstance transpired. After one queen had been removed, the bees continued very excited, which led me to think they had balled the other queen. This I found to be the case. She also was caged, but left in the hive. Still the excitement continued all night, and next morning when I went to liberate the queen I found the cage surrounded by an excited mass of bees. I liberated the prisoner; at once she was again balled. Such a case could only be accounted for by supposing that in some mysterious way a third queen had entered the hive, so I at once removed the balled. In a few moments the excitement died away, the bees set to work with a will, and in twenty-four hours had all their combs built out and mostly furnished with honey, besides starting in a case of sections. The intruder, of which I only had one hasty glance, turns out to be the late head of a nucleus that stands 10 yards off. She had been out on her wedding trip while the swarm was in the air, and, joining it, entered the hive, where she seemed to be preferred to the pair of old queens. A few hours more and I should have been minus 2 fertile queens, which means just now a prospective loss of 5,000 bees a day for at least a week.

☞ Mr. Geo. E. Hilton, Fremont Center, Mich., having some nice comb honey, took 2 boxes of it to the *Indicator*, published in that place, as we notice by an item in that paper.

☞ We have prepared a SPECIAL edition of the BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity desired.

SELECTIONS FROM OUR LETTER BOX

Bee Stings.—A writer in the JOURNAL, some time since, gave us a remedy for bee stings—"hold your tongue." I find that one generally has use for that member about the time a bee sits down on him. If Mr. "Hold-your-tongue" will smoke the place thoroughly, where the stinger went in, I think that he will find it a much easier task, and in a short time he will hardly know that he has been stung. It serves not only to prevent the scent from being communicated to the rest of the colony, but kills the poison. Try it. S. GOODRICH.
Saybrook, Ill.

Obscure, Scientific, but Silent Bee-Men.—On page 226, of the BEE JOURNAL, Mr. Clarke says that he has ferreted out an obscure scientific apiarist. These are the kind of men we like to hear about; but we would rather hear *from* than about them. Mr. George Sturgeon, no doubt, has a great deal of knowledge and experience, and if such men would write an article, now and then, for the BEE JOURNAL, it would do some of us (especially those who are young in the business) much good. It seems to me, from last winter's reports, that most of us have much to learn yet. I visited a neighboring bee-keeper, a short time ago, and handed him a copy I had with me of the BEE JOURNAL, and asked him to subscribe for it. He replied: "No; there is no necessity for me to spend my money in that way; I know all about bees." Yet, out of the 9 colonies he prepared for winter last fall, he has but 4 left. Now, if the scientific obscure apiarists would write an article now and then for the BEE JOURNAL, they would most certainly gladden the hearts of many of its readers, by letting their light shine, for we desire to profit by the experience of others. I am well aware that we have many excellent writers now, whose efforts have been and will be highly appreciated. I commenced the season with one colony, which was divided May 16. I have received 35 pounds of comb honey in 2-pound sections from the younger colony. They are both very strong, and are bringing in a little honey from the second crop of white clover, which is very short on account of the dry weather.
A. E. FOSTER.
Covington, Ky., July 30, 1881.

Stung by Cyprians.—My little boy was nearly stung to death by cross Cyprian bees, a few days ago. The child is 20 months old. He had not been missed from the house when his mother heard him scream in the apiary. He was in front of the hive, and his head covered with bees. He luckily recovered after 3 days of suffering, by the application of cold water. C. P. DADANT.
Hamilton, Ill., Aug. 1, 1881.

A Colony Determined to Keep Two Queens.—I have fought the elements for 8 months, and have had but little reward, except bringing my bees through with but little loss. The winter here was quite favorable for bees, though the spring has been the worst for bees that ever was known. My bees are now in prime condition for storing surplus. The basswood will soon be in bloom; we shall have an abundance of it, as the late rain has, with the warm weather, revived things very much. My bees are mostly Italians; I find them much ahead of the blacks. I own ½ of a small apiary located at Charles Barker's; we have things in fine condition to produce honey. I think we are fortunate; we have one colony that accepted 2 queens to lay, and seem to be perfectly thrown out of order when one is removed. I have removed 2 this season, and the bees were very much excited until they had another started. The first daughter hatched before there were drones. She remained with the mother about 10 days, when I removed her, and they at once made a queen-cell and the mother remained in the hive; the daughter became fertilized and also remained in the hive and laid about one week. I removed her and introduced her to another colony, where she is filling the combs profusely. I see to-day the parent colony has a queen-cell with an egg in it, which proves that they are determined to have 2 queens. The daughters seem to be exactly like their mother. I value these queens much. I will report again hereafter. The BEE JOURNAL is an excellent thing to keep away the blues. I hope I shall be able to be one of its readers as long as I read anything. G. H. GREEN.
Athens, Maine, July 11, 1881.

Very Little Surplus Honey.—Bees have done very little in the way of collecting honey here, so far this season. Fruit blossoms and white clover yielded comparatively no honey. Basswood bloom was immense, but lasted only a few days. Vegetation is dying, being burned up by the heat and drouth. Corn cannot make over ⅓ of a crop. We have no show for any surplus honey here at present; our hopes are blasted. T. J. WARD.
St. Mary's, Ind., Aug 1, 1881.

Feeding Full Winter Stores.—Is it possible to feed up and carry through the winter bees in box hives, after being robbed clean at frost? A friend told me he was going to brimstone a part of his bees. I can have the bees and brood comb free—would it pay me to try to carry them over? I wonder if the balance of the country is as dry as Southern Illinois is at this time. We have not had any rain for six weeks to-day. Grass and clover are dead; in fact, the meadows would burn like old grass, if the match was applied. If it does not rain, and that soon, there will not be corn raised to fatten the hogs. This has been, and I fear will remain an extremely bad year for bees. They are now consuming the white clover surplus. Another question: Do bees usually store sufficient honey in brood frames to carry them through the winter? Long live the BEE JOURNAL. D. W. BELLEMEY.
Vienna, Ill., July 31, 1881.

[It is possible with an entrance feeder, or a division-board feeder, such as Prof. Cook describes in his "Manual of the Apiary," to feed enough sugar-syrup to winter the bees nicely; and if bees at an extreme cost of $2.50 per colony are any object, it will pay you to take them. Ordinarily, with a medium-sized brood chamber, bees will store an abundance in the brood frames for wintering on. We saw many colonies last fall in Kane Co., Ill., which had not honey enough in the brood frames to last half the winter; but it was because they could not find the honey to store, not from lack of room.—ED.]

On the Wing.—We left our home, Peoria, Ill., on the evening of July 27, our destination being St. Johnsbury, Vt., the birth-place of Fairbanks' scales. All the way we were on the *qui vive* for honey plants, but recognized very few until we arrived at Albany, N. Y. From there to Troy we were gladdened by the sight of sweet clover in all the rocky crevices. The road from Greenfield, Mass., to this place, is edged with gold—golden rod everywhere—against the side of depots, lumber, etc., in some places appearing like a cultivated crop—a sea of waving gold. The bouquets in the church decorations were composed in part of golden rod, mingling with ferns and golden-banded lilies, unknowingly doing honor to a bee-keeper from Illinois. MRS. L. HARRISON.

Drouth.—My bees have done very poorly this season; I have had very few natural swarms, not over 1,000 pounds of extracted honey and 125 pounds of comb honey; and with 70 or 75 colonies we are in the midst of one of the most disastrous drouths I ever saw, and not a drop of rain for nearly 5 weeks. It was very wet until the dry weather set in. What has become of M. B., of Fincastle, Ind., and that promised article on "Fertilization," in time for the present season? Has he or she or they forgot it, or did their bees all die in the spring, or, or—what? The season is marching on, and still it does not come.
J. F. LOVE.
Cornersville, Tenn., Aug. 2, 1881.

[M. B. is making experiments and will report when there is anything reliable to report.—ED.]

Ants.—Every bee-keeper in the land has met and fought the intolerable ant-nuisance, in one shape or another, and yet they are not conquered. I have had them wade over seas of carbon oil, to reach the hive, where they might domicile on the upper side of a warm honey-board, among the caps and supers to propagate their millions. Now for the remedy. Look up an old milk pan, holding about a gallon, or larger is better, whittle a handle on the thick end of half a pine shingle, slip the thin end under and nail with clinch tacks from the inside bottom of pan, and your cremator is finished. Fill your pan about half full of dry shavings or excelsior, and you are now ready for the conflict. Fire the shavings first, then quickly take off the top or covering of your hive, with the flaming pan in one hand and a broom-corn whisk in the other, you will scoop both eggs and ants in the flames. Those escaping, you can get on a second trial. For 25 years I have fought this ant nuisance in vain. This year I have conquered; on a hundred hives in my apiary not a spoonful of ants can be found to-day. Give it a trial; when a thing is burned up that is about the end of it. J. W. BAYARD.
Athens, O., Aug. 13, 1881.

Bees in Kansas.—Last winter being a very severe one, about ⅔ of the bees in this neighborhood died. I lost all but 3 colonies; I had 20 in the fall, in Langstroth hives; I wintered out-of-doors, unprotected. The 3 that came through the winter were very weak in the spring. I took good care of them, following the directions given in the BEE JOURNAL, and in the manuals. I bought 2 colonies of bees, one black and one Italian, making 5 colonies to start with again in the spring. I increased to 8, which are in good condition now, except one weak. This season has not been very promising for bees. In the spring they commenced work in the section boxes, but in May, June, and July it became so dry that they used all the honey they had. During the past week they began to work on buckwheat, and are fast filling the hives up with brood. The bees and queens of some colonies are breeding in the upper story and leave the lower story empty. What shall I do to get the brood down in the lower story again? ERNST ZABEL.
Williamsburg, Kan., Aug 1, 1881.

[Put in the center of the brood-chamber 2 or 3 empty combs, or frames filled with foundation.—ED.]

Gratitude to Messrs. Jones and Benton.—The readers of the BEE JOURNAL will be pained to learn that a recent letter from Mr. Benton, just received, states that his health is not restored. The effects of the severe exertions and great hardships incident to his arduous labors to secure the *A. dorsata*, are slow to leave him. All of us will surely hope that they will not be lasting, as, surely, Mr. Benton has richly earned the hearty gratitude not only of American apiarists, but those of the whole world. Though Messrs. Jones and Benton may not secure great pecuniary benefits for their grand undertaking, they surely may feel the proud satisfaction of knowing that they have done a great favor to apiarists. A. J. COOK.

Fresh Every Week.—The Weekly BEE JOURNAL is so valuable to me that I can hardly wait for the next number. I have been reading nearly all the literature devoted to bee culture, and I find the AMERICAN BEE JOURNAL the best; perhaps that is in part, because it comes so fresh and clean every week. L. J. DIEHL.
Butler, Ind.

Stizus Grandis.—I send you two specimens of the great wasp family (I use the word wasp in the broad sense), which inhabits the Middle and Southern States. They were captured and presented to me by my nephew, Mr. L. W. Demaree. They are quite formidable-looking insects when alive and active. Being somewhat rare here, I have not been able to study their habits successfully. What account can you give of them in the BEE JOURNAL? G. W. DEMAREE.
Christiansburg, Ky., July 28, 1881.

[This is *Stizus grandis*, Say. It is one of our largest and handsomest wasps, and is over 1½ inches long. The color is black, handsomely ornamented with yellow bands. Like all wasps, these are predacious, and by destroying other insects (mostly those that are noxious) they do no little good. Their stings are formidable; but like other Hymenoptera, they seldom sting unless rudely treated. The fear of bees and wasps that is so often felt, is unnecessary. Let them alone, and they will almost always return the civility; maltreat them, and they will repay with interest.—A. J. COOK.]

☞ The time selected by the Executive Committee for holding the National Convention, at Lexington, Ky., is October 5, 6, and 7, 1881. All bee-keepers are invited to attend and take part in the deliberations of the Convention. As Lexington is a central point, the Executive Committee hope to have a large attendance from the the North, South, East and West, and from Canada, and that the 12th annual meeting of the North American Bee-Keepers' Society will be the most interesting meeting that the bee-keepers of the United States have ever held.

The National Convention will be held during the time of holding the St. Louis Fair and the Expositions at Cincinnati and Louisville, and that all passing through those cities can get the benefit of excursion rates.
N. P. ALLEN, *Pres.*

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. MILLER, M. D., *Pres.*
C. C. COFFINBERRY, *Sec.*

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. GOODNO, *Sec.*

☞ The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting Aug. 30, at Rock City, Stephenson Co., Ill. JONATHAN STEWART, *Sec.*

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.
N. E. FRANCE, *Sec.*, Platteville, Wis.

☞ The Eastern Michigan bee-keepers' Association will hold its fall meeting in Detroit, Oct. 4, in the Y. M. C. A. hall, at 10 o'clock a. m.
A. B. WEED, *Sec.*

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☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

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☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

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☞ When changing a postoffice address, mention the *old* as well as the new address.

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A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

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Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

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◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

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	Publishers' Price.	*Club.*
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Local Convention Directory.

1881. *Time and Place of Meeting.*

Oct. 4—Eastern Michigan, at Detroit, Mich.
A. B. Weed, sec., Detroit, Mich.
6—Union Kentucky, at Shelbyville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
5-7—National, at Lexington, Ky.
--Kentucky State, at Louisville, Ky.
11, 12—Northern Michigan, at Maple Rapids.
O. R. Goodno, Sec., Carson City, Mich.
11, 12—Northeastern Wis., at Pewaukee, Wis.
Frances Dunham, Sec., DePere, Wis.
12—Central Ky., in Exp. B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
25, 26 Northwestern District, at Chicago, Ill.
C. C Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.
1882.
Jan. 25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N, Y.
April 11—Eastern Michigan, at Detroit, Mich.
A B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

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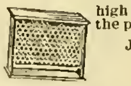

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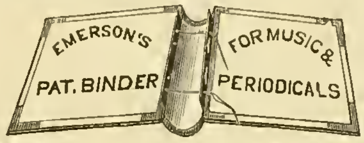

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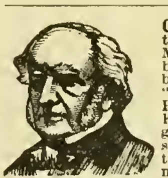

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The Bee-Keeper's Guide;

OR,

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—:o:—

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—:o:—

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I think Cook's Manual is the best of our American works.—LEWIS T. COLBY.

It appears to have cut the ground from under future book-makers.—*British Bee Journal.*

Is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without.—*Nebraska Farmer.*

Prof. Cook's valuable Manual has been my constant guide in my operations and successful management of the apiary.—J. P. WEST.

I have derived more practical knowledge from Prof. Cook's New Manual of the Apiary than from any other book.—E. H. WYNKOOP.

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It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat*, Pulaski, N. Y.

We have perused with great pleasure this *vade mecum* of the bee-keeper. It is replete with the best information on everything belonging to apiculture. To all taking an interest in this subject, we say, obtain this valuable work, read it carefully and practice as advised.—*Agriculturist*, Quebec.

It may safely be pronounced the most complete and comprehensive of the several manuals which have recently appeared on the subject of bees and their handling in apiaries. The studies of the structure of the bee, the different varieties, the various bee products, and following these the points of management, extending to the smallest details, are all of high and practical value. Prof. Cook has presented the latest phases of progressive bee-keeping, and writes of the themes discussed in the light of his own experience.—*Pacific Rural.*

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Cook's Manual of the Apiary holds in America the same high rank, that is accorded in Germany to the book of which Dzierzon is the author; the only difference being that Prof. Cook's Manual combines the profoundness of the German pastor with the superiority of the practical American. He refers in several instances to Darwin; and does not belong to that class which hates everything that is foreign, for he speaks of German naturalists with great reverence.—*German Freidenker*, Milwaukee, Wis.

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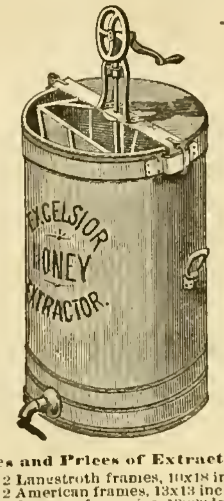

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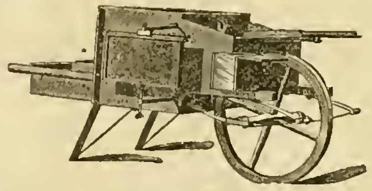

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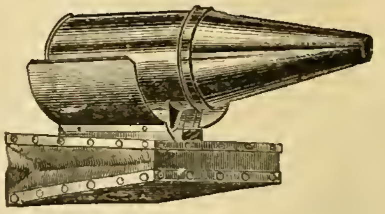

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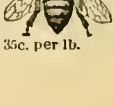

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ESTABLISHED IN 1861

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CORRESPONDENCE.

For the American Bee Journal.

Preparing Bees for Winter.

DAVID HIGBEE.

Last fall I had 7 colonies in Langstroth hives; 3 were made with double walls and building paper between the walls, and to fill the space excelsior was packed in closely. All my hives, except one, were packed by the use of chaff in the upper part of the hives, at least 5 inches thick, also 1 or 2 frames on each side of the brood-nest were removed, to be again returned in the spring, and chaff packed on the sides in their places. The 3 hives (not double-walled) I also packed as above and covered over with slough grass. The others I did not so cover.

I made a mistake with the single-walled hives in placing them only 4 inches from the ground. When the deep snow drifts filled my garden in February where the bees were, and began to melt, before I was aware of it the water had risen 3 inches high above the entrances of the single-walled hives that were covered with the hay. I made every effort to secure drainage, but found the hives were frozen fast in solid ice which I could not remove without destroying the hives, and inasmuch as the bees were supposed by me to be smothered, I abandoned them as lost and did not go near them again until April 1, when they were standing in a pool of snow-water 2 inches over the alighting-boards. I then opened them from the top, when I was astonished to not only find them alive but in good condition, and full of hatching brood above the water-line. They have been in better condition than any of my bees all the season. The others came out well, except the one not packed in chaff, which was very weak, although in good condition in the fall, having yielded 75 pounds of surplus comb honey last year.

I found in all my hives that the chaff next to the frames was dry, but nearly rotton on the top, from accumulated moisture; this suggests to me the apparent necessity of a little top ventilation. From the fact that my bees did well for 2 months with the bottom entrance frozen shut, I conclude it is not essential.

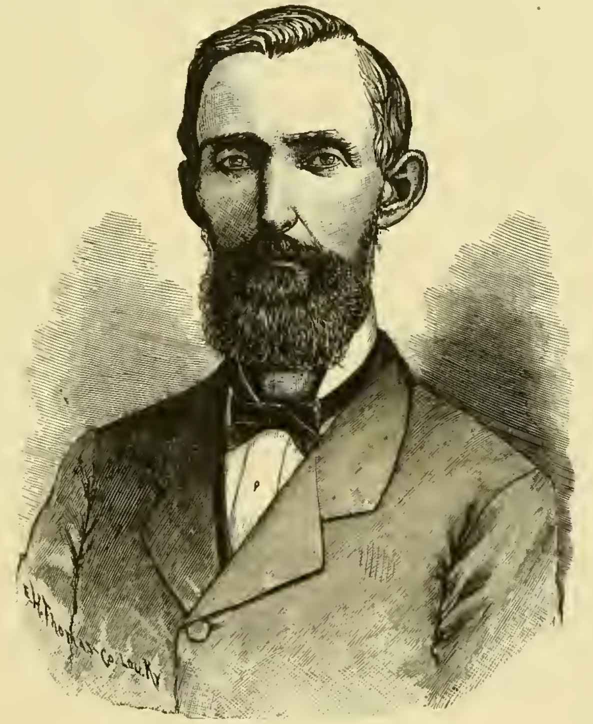
This fall I will set my bees one foot above ground, and pack as before. How about lime over the chaff to absorb this moisture? This has been a very poor honey season in this locality; I do not hear of any one yet securing any surplus. I only made one new swarm this year, as I was all the time waiting for the honey season to set in.

My bees are Italians and are in good condition and very strong, with plenty of brood but scarcely any honey; this has been the poorest year in the 20 that I have been in the bee business. I am delighted with your JOURNAL; could not think of doing without the Weekly, but must beg leave to say that I like the old form better, as I wish always to bind it. The old form is better for the library shelves and for perusal.

Avoca, Iowa, Aug. 4, 1881.

Biographical—Dr. N. P. Allen.

Dr. Allen was born in Cumberland Co., Ky., April 30, 1830, was reared in Warren county, Ky., and educated in the common schools and academies of the county. He received his professional education at the Ohio Dental College, Cincinnati, Ohio, in 1851-52. In 1855 he married Miss Kate E. Edmonds, of Glasgow, Ky., and has lived upon a farm ever since, his health not allowing him to be confined in a dentist's office. It being necessary for him to spend much of his time in active exercise in the open air, he devoted his time to agriculture, bee-culture, and the rearing of fine stock—horses, cattle, sheep and hogs.



Truly Yours
N P Allen

In 1874 he called the bee-keepers in Southern Kentucky together at his residence, where the Southern Kentucky Bee-Keepers' Society was organized, and he was elected the first President of the Society, and was re-elected for 3 successive years, after which he refused to accept the office any longer. He became the Secretary from that time until it was merged into the State Society, at Louisville, Ky., Oct., 1880.

He was elected President of the Kentucky State Society, in Louisville, and also of the North American Bee-Keepers' Society, at Cincinnati, in 1880.

He has spent much time in the study of bee-culture, but has never had any intetest in patent hives or the sale of any apiarian tools, and has spent much time and money in spreading a knowledge of rational bee-keeping among the bee-keepers of his locality and State. He has never failed to attend the bee-keepers' conventions of his county, district, or State. He has traveled in Kentucky and other States, in the interest of apiculture. The Doctor has given his whole energy and influence to develop the honey resources of the country, and without reward or pecuniary advantage, except the thought that he has been instrumental in dispelling, to some degree, ignorance and superstition in regard to the cultivation of the honey bee, and in seeing thousands of pounds of pure honey gathered, where none was gathered before.

The honors conferred upon him were not of his seeking, neither did he expect any consideration for the lively interest he has taken in the progress of American apiculture. *

For the American Bee Journal.

Getting Bees off the Combs.

G. M. DOOLITTLE.

On page 222, H. F. B. wished to know how to get bees from the combs. He said "we are told to shake them off, but there must be a particular way to shake them that I do not know of, for that plan to answer." I always shake the combs to get the majority of the bees off, and with the blacks every bee can be shaken off.

To do this, place the ends of the frame on the ends of the 2 middle fingers of each hand, and then, with a quick upward stroke, throw the ends of the frame against the ball, or thick part of the hand, at the base of the thumb. As the frame strikes the hand let the hands give a sudden downward motion, which makes the shock still greater. As the frame strikes the fingers again it is thrown back against the hand, and so on till all, or nearly all of the bees are off. The principle is that the bee is on her guard all the while to keep from falling off, thus holding on tenaciously so as not to be easily shaken off. By the sudden stopping of the upward, and a quick downward motion, the bees are thrown off their guard and disloged from the comb. I do not remember of even having broken a comb by shaking it, as above described. Now, if we disturb the Italians, causing them to fill themselves with honey, they can then be shaken from the combs about as easily as black bees. But even if we cannot afford time to wait till they are filled with honey, 4-5 of them can be shaken off. To get off the remainder I take a turkey or goose quill and trim down the feather edge about ½ on the wide side, and with this I have no trouble in getting off those remaining, without irritating them. Of course it will appear a little awkward at first, but will soon be found easy enough.

Borodino, N. Y., Aug. 6, 1881.

For the American Bee Journal.

The Rearing and Mating of Queens.

G. W. DEMAREE.

This subject will never grow old and tiresome as long as there is room for improvement. I have read with much interest the several articles that have appeared in the JOURNAL from time to time, giving the methods and experience of the writers, touching this subject. To rear good queens we are told that we must select our colony to rear our queens from, and another to furnish the drones to fertilize them, and we are ready for business. This looks quite business-like, and, doubtless, would answer well enough if the apiarist resided in some secluded spot, where the wing of the honey bee had never fanned the air. To say that there are no "black bees in the vicinity" does not quite cover the grounds. There are hybrids in every vicinity where both races have existed. Though the black race may long since have been banished, they have left their blood behind.

With just one colony to furnish drones, their being other drones in the vicinity, the apiarist could just as reasonably expect his queens to be struck by lightning as to expect them to mate, with certainty, with the few drones that his one colony furnishes. Of course such proceedings would answer better very early in the spring and late in the fall, when there are few drones in existence.

Mr. A. I. Root tells us that he has had queens mated at a time when he could see no drones, and I have seen something very nearly like it myself. If I wanted queens to breed from I would not give much for them after they had taken such a fearful chance for purely mating, unless I could thoroughly test them myself, both as to their worker and queen posterity. At the risk of being charged with heresy, I avail myself of this opening to say that careful experiment has convinced me that there are not a few queens whose worker posterity are "well-marked" that, nevertheless, bear hybrid royal daughters. Hence, if our object is to rear pure queens and bees, we must be on the continual watch for taint of blood. Years ago I introduced, in the vicinity in which I reside, the Italian bees. They were a great curiosity in those days. I set them up somewhat remote from other bees, and in my innocence of bee knowledge pertaining to the habits of queens in their mating season (though I knew something of bees in other respects), I expected to build up an Italian apiary without any difficulty. I went to work to rear queens, and why should I not succeed? I had a fine lot of drones issuing from 1 or 2 colonies every day, and was as well off in this respect as those breeders who "select one colony" to produce their drones. Well do I remember my disappointment and disgust when I watched for the first hatching bees of my young queens to find them all hybrids. I concluded that a lottery ticket was about as reliable as a purely mated queen, under the circumstances. Nevertheless, I learned something in the meantime, and changed my tactics. I paid no further attention to the mating of queens, but gave all my attention to pure queens and consequently pure drones. And when the time came that I had pure drones flying from 15 or 20 colonies, my labors began to be rewarded. My queens were mated with pure drones, and it is now no trouble for me to rear queens that will bear the test of purity.

If any person will give the subject of mating of queens the time and attention necessary to get a pretty fair idea of the habits of queens and drones in their mating season, his faith in "3" faint bands and purity of blood generally will certainly undergo some diminution. A week ago I undertook to watch (as I have often done) a fine young queen, and see all that could be seen in connection with her wedding flight. I found her to be a consummate flirt. Notwithstanding the air was ringing with the hum of thousands of bustling drones, this queen made 8 trips into the air, aggregating about 70 minutes of time. On her last tour she was gone 25 minutes; her bees became very restless, and I "trembled" for her safety, but she gladdened the hearts of the ushers at the threshhold by flaunting her wedding certificate as she entered the "queen's palace."

Christiansburg, Ky.

* * *

From Psyche.

Insect Life During Winter.

PROF. A. J. COOK.

The condition of our vertebrate animals in winter, and also the functional condition of their organs, have been well studied and are pretty well understood. That most of them require more carbonaceous food at this season, as this ministers to the special kind of nutrition which supplies animal heat, is a well recognized fact. It has long been known that some vertebrates hibernate, in which state they respire very slowly, and so are able to live even though the heart does circulate unoxidized blood.

The functional activity of the organs in this case is reduced to the minimum, and so nutrition is almost abated, and no food is required other than that stored up in the adipose tissue. But even though these animals do live so slowly, with too severe and long continued cold they often lose even this little vitality and perish.

Physiologists have determined that tissues and organs, whether *in situ* or removed from the body, will maintain their vitality for a long time, and often indefinitely, if kept in a cold atmosphere, though all functional activity is for the time held in abeyance. I myself have exposed hens' eggs, while in the process of incubation, to a temperature little above 0° C., until I had good reason to believe that the hearts of the embryo chicks had ceased to beat. I then replaced the eggs under the brooding hen, when with the return of heat came also a resumption of development. Very likely the same explanation may rightly account for the retarded development in many tadpoles that pass the winter in an immature state. Most frogs develop fully in summer, and pass the winter in a mature state. Yet we not infrequently find tadpoles in mid-winter, or large ones at the very dawn of spring.

If all animals have had a common origin (and can any biologist doubt it?), we may expect that the phenomena observed among invertebrates will closely resemble the peculiarities which we note in our study of the higher forms.

The effects of cold to stay or retard development among insects, though perhaps not so long and closely studied as have been the same influences as they worked to modify development among the vertebrates, will be found, I feel quite sure, to act in a very similar way.

The winter of 1874-75 was one of the most severe ever experienced in the northern United States. In the month of February of that year, the temperature fell below zero of the Fahrenheit scale (—17.°8 C.), at Lansing, Mich., twenty-one times. The mercury showed—20 F. (—28.°9 C.) on 8 different days, and—30° F. (34.°4 C.) twice. Surely this was a good time to study the effects of cold on insect life.

The codling moth insect (*Carpocapsa pomonella*), as is well known, passes the winter in the larval state, protected only by a slight silken cocoon, and some bark scale, crevice, or similar covering. The spring following the severe season just referred to I found that nearly all these larvæ that had passed the winter out-doors about the apple trees were dead, a circumstance I have never observed at any other time. The fact that this mortality was not due to parasites, that there was no climatic peculiarity during that winter other than the cold, especially as the larvæ in cellars and kitchens were healthy and lively, points strongly to the severe cold as the cause of this welcomed mortality. If this inference is correct, we must conclude that insects which freeze up in winter may succumb to very severe cold.

Farmers long since observed that clover sward ploughed in autumn, and planted to corn the following spring, was less liable to be attacked by cut-worms, than when ploughed in spring, and immediately planted. This has led to the very general belief among farmers, which view is adopted by several noted entomologists, that exposure to the cold, especially to alternate freezing and thawing, is what destroys the cut-worms. During the very severe winter already referred to, I subjected some cut-worms—larvæ of species of *Agrotis*—to intense cold, and to alternate cold and heat, which seemed in no wise to injure them. Others were exposed very much as they would be by fall ploughing, and yet passed the winter in safety. The farmers are doubtless correct in thinking that fall ploughing is a protection against these marauding cut-worms; but wrong in their explanation. Exposure to insectiverous birds and not to cold is the more probable solution, especially as frequent cultivation of the land in autumn and spring, when birds are plenty, is found to greatly augment the destruction of insects.

The late Mr. Quinby, in his work on bee-keeping, states that the larvæ of the bee-moth (*Galleria cereana*) cannot survive exposure to the cold; that if these larvæ are removed from the hive and its genial heat, during the winter, they surely die. Mr. G. M. Doolittle reports that he has observed these bee-moth caterpillars in exposed positions, and that they have survived even the present rigorous winter of 1880-81. I have often noticed these larvæ and the chrysalids, which have passed the winter in cold rooms outside the hives. Still from the natural surroundings of these insects we may easily believe that they have developed a constitution more susceptible to the cold than insects whose habits bring more exposure.

Mr. W. H. Edwards has shown how the development of butterflies may be retarded by the cold. The bearing of these experiments upon the formation of different broods of a species and characteristic markings of each brood is of very great interest.

Among honey bees of the genus *Apis*, we note peculiarities in respect to cold, which, like their habits and instincts, seem to separate them widely from most other insects, and strongly remind us of the vertebrates. Most insects freeze up in winter, so that all their functional activities are held in abeyance, ready to start into action at the touch of revivifying warmth, which ever comes with returning spring. A few of the higher ones really hibernate. There is a slight activity of the tissues which is sustained by the stored-up fat cells of the body. The species of *Apis*, on the other hand, remain active, take food, and resemble more closely the higher vertebrates. In a nearly uniform temperature of from 3° to 8° C. the domestic honey bees remain very quiet, take but little food, and only move as the cold outside of the cluster impels them to crowd towards the center, or as the absence of food in any part of the hive impels the whole cluster to change its position. If the temperature outside the hive is maintained within the limits mentioned above, the bees will eat so little, and there will be so little dis-assimilation in the body, that all the excrementitious substances, except such as pass off with the breath—and this is very slight at such times—are easily and safely held in the intestines for so long a space as 5 or 6 months. But if the temperature immediately without the hive is for any considerable period lowered much below the point mentioned above, the bees attempt to increase the animal heat by action, and by increased consumption of honey, which among vertebrates is typical as a heat-producing food. This leads to an excessive accumulation of fecal matter within the intestines, which consists of the undigested food and the waste products which are the resultant of functional activity. In this condition, bees must soon fly forth to void their feces, which in normal circumstances they only do on the wing, or soon they will be attacked by fatal dysentery. The above is undoubtedly the rightful explanation of the exceeding mortality among bees the past winter. In many parts of the more northern States, bees have been confined to their hives for 5 months, and in almost all cases where they have not been protected from the severe cold, they have died. Those wintered in suitable cellars are safe and healthy, and many protected out-doors by a thick wall of chaff about their hives are saved from death. I have found by weighing the honey in the fall and in the spring, that bees kept in the right temperature during the past winter have consumed never more than 10 pounds (4 Kg. 5) of honey to the colony, while all colonies exposed to the severe cold have taken twice that amount. The former wintered well, the latter have sickened and died.

If bees are confined in winter, and the temperature be raised much above 10° C., the heat becomes a serious irritant, and the bees, unless their hives are very well ventilated, and unless they are soon enabled to fly out from their hives, will speedily die.

It is an interesting fact that bees require only the carbo-hydrates for food in winter. They will winter better on clear honey or even pure cane sugar than when well supplied with the nitrogenous pollen. I think the reason of this is, that in the first case they are prevented from the activity which follows upon brood-rearing, and breeding can only be carried on when there is pollen in the hive.

We see then that our honey bees are not dormant in winter, but that, in our colder climates they are Othello-like, and with their occupation gone; and shut in by the rigor of the season, they only eat the small amount necessary to the bated activity of their bodily functions.

* * *

For the American Bee Journal.

Top Storing, Separators, etc.

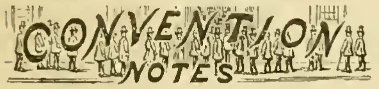
GREINER BROS.

Since writing, July 2, our bees have changed the programme materially. When the basswood began to secrete honey, about the middle of July, they went to work in the top sections in good earnest, and with partially filled sections from the sides as inducements, they have done and are doing a remarkable season's work. We have tiered up 3 and 4 half stories, each of from 30 to 32 pounds, on many of our colonies, besides the finished sections we have taken from the sides. Of course we cannot yet give a report of the season's crop; honey is still coming in, and is likely to continue for some time, for buckwheat has hardly commenced.

On page 234 Mr. Heddon explains why bees do and do not attach to different materials; his theory sounds right enough, but does not stand investigation. We claim, and Mr. Heddon will agree with us, that the material has little to do with the attaching of comb, bees being incapable of doing so, on account of hardness of material, is argument only. If Mr. Heddon will look around and see how nicely bees attach the edges of combs in 4-sided glass boxes, how solid they brace up things in glass dishes, such as fruit jars, tumblers, globes, etc., a material at least as hard as tin or a coat of paint, he will hardly claim that their incapability tends to make tin better suited for separators than wood. By Mr. Root's recommendation we painted, the first season, about ½ of our separators; we could not see any difference, and as plain wood gave such complete satisfaction, we never painted thereafter.

What keeps bees from attaching combs to separators is "nature's inclination and man's ingenuity ;" leave your guides away or turn them square against the separators, and they will find as good a chance to attach their first scale for a brace on tin as on wood, or any other material. Nature seems to teach them that small quantities of honey, such as is stored in the commonly used sections of the present day, are sufficiently supported by being attached at the edges. We often find the side combs in the brood chamber attached sidewise ; the combs being large and generally filled to a great extent with honey, bees deem it necessary to strengthen them by attaching braces to the sides of the hives.

Naples, N. Y., Aug. 8, 1881.



For the American Bee Journal.

Barren Co., Ky., Convention.

The Barren Co., Ky., Bee-Keepers' Society met at Allen's school house, July 30, 1881. pursuant to adjournment. The President called to order, and the minutes of the last meeting were read and approved. The roll was called, and several names were added. The following subjects were then discussed :

The Best Method of Protecting Bees in Winter.

N. H. Holman said that bees should always have protection of some kind ; he preferred to put a box over the hive 4 or 5 inches larger each way than the hive, leaving the entrance open, with straw well packed between the box and the hive, and well covered to keep dry.

J. W. Scrivner had frequently lost bees for want of winter protection, and would advise protection of some kind.

H. C. Davis would recommend putting the hives on a bench or platform, 6 or 8 inches high, facing the southeast ; putting up boards or planks on the northwest, for wind-breaks ; then pack with crab grass all around and under the hive, except the front, contract the entrance, cover the hive well to keep it dry, removing all combs from the top story and fill up with old clothes, rags, or chaff cushions. This should all be done early, before winter sets in.

Dr. Allen preferred wintering on the summer stands. He protects his bees by keeping them strong in numbers with plenty of stores, with chaff cushions on the quilts in the upper story ; he lost one out of 40 last winter.

When and How Shall We Feed ?

J. T. Gray never had to feed much; his bees generally had stores enough to winter on, but would prefer feeding good sealed honey, if they have not honey sufficient for winter.

H. C. Davis : If bees have less than 20 pounds of honey to the colony they should be fed on sugar syrup in the fall, after storing ceases, by placing syrup in an oyster can, with the top covered with muslin, turned bottom upwards on the frames.

Dr. Allen had learned to make his bees self-sustaining by feeding them sealed honey, beginning about the last of February or the 1st of March, and continuing until honey is plenty in the flowers, on honey removed from the hives the fall previous, for that purpose.

The President then appointed as committee on apiarian supplies, J. M. Holman, R. J. Parker and W. V. Greer; and on subjects for discussion at next session, J. H. Adams, H. C. Davis, N. H. Holman and J. W. Scrivner. On motion the meeting adjourned.

At 2 p. m. the President called to order and the committee on apiarian supplies reported the following articles on exhibition : Two samples of honey by Dr. Allen (peach and white clover); the clover honey is of superior quality both in color and taste ; also one by I. N. Greer, which was very nice ; a lot of Bingham smokers, which we consider the best in use ; one of Peet's introducing cages, exhibited by Dr. Allen, recommended to be good for the purpose for which it is intended ; one case of bees by I. N. Greer, which we consider nice Italian bees ; this race of bees we recommend, as being in every particular superior to the old race of black bees; copies of the AMERICAN BEE JOURNAL, also *Gleanings*, both of which we take pleasure in recommending to bee-keepers. J. M. Holman, R. J. Parker, W. V. Greer, Com.

On motion the report was adopted and committee discharged.

The committee on subjects for discussion at the next session reported the following : 1. What is the best plan to prepare bees for winter, to prevent dysentery in the spring ? 2. Which is better, natural or artificial swarming ? 3. Would it be profitable for every farmer to keep 10 or 12 colonies of bees, or is there any fear of being over-stocked ? 4. Which is the most profitable, extracted or comb honey ? J. H. Adams, N. H. Holman, J. W. Scrivner and H. C. Davis, Com.

The report was accepted and the committee discharged.

How to Prevent Drone Brood.

J. H. Adams said, keep all drone comb away from the brood-nest.

H. C. Davis said, to prevent bees from building drone comb they should be supplied with worker foundation.

Can We Manage Bees so that the Moth Worm will not Destroy Them ?

J. H. Adams said since the introduction of the movable frame hive bees could doubtless be kept free from moth. If we keep Italians or hybrids and keep them strong, we shall have no trouble with moth ; if we have them in our weak colonies, we can raise the frames and kill them.

H. C. Davis : The best plan to prevent moth is to remove all combs not occupied by the bees, and, if necessary, smoke them and give them back to the bees just as fast as they need them, but no faster.

The President then stated that the Kentucky State Bee-Keepers' Convention would be held in Louisville on Oct. 12, and appointed J. H. Adams and J. M. Holman as delegates to attend that Convention. Dr. Allen then delivered an interesting address on the pleasures and profits of bee-keeping.

The following resolutions were then read and adopted : *Resolved*, That the thanks of this Society be tendered to the citizens in the vicinity of Allen's school house, and especially the ladies, for their excellent entertainment. *Resolved*, That the proceedings of this Convention be published in the *Glasgow Times, Farmers' Home Journal*, and the BEE JOURNAL.

On motion, the Society then adjourned to meet on the first Saturday in April, 1882. The place of meeting was not designated, but is to be published in time for the meeting.

I. N. GREER, *Pres.*

J. M. HOLMAN, *Sec.*

* * *

Bee-Keepers' Union.—The Eastern New York Bee-Keepers' Union Association, will hold their eighth semi-annual Convention on Tuesday, Nov. 29, 1881, at 10 a. m., at Knowersville, N. Y. All bee-keepers are invited to attend. W. D. WRIGHT, *Pres.*

N. D. WEST, *Sec.*

* * *

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. MILLER, M. D., *Pres.*

C. C. COFFINBERRY, *Sec.*

* * *

☞ The Eastern Michigan bee-keepers' Association will hold its fall meeting in Detroit, Oct. 4, in the Y. M. C. A. hall, at 10 o'clock a. m.

A. B. WEED, *Sec.*

TWELFTH CONVENTION

OF THE

North American Bee Keepers' Society

TO BE HELD IN THE

Odd Fellows' Temple, Lexington, Ky.,

COMMENCING ON

WEDNESDAY, OCTOBER 5, 1881.

☞ Lexington, Ky., being a central point, the Executive Committee hope to have a large attendance from the North, South, East and West, and from Canada, and that the 12th annual meeting of the North American Bee-Keepers' Society will be the most interesting meeting that the bee-keepers of the United States have ever held.

Notice to Vice Presidents.

I desire to say to the Vice Presidents of the North American Bee-Keepers' Society, that I wish each one would send me a report of bees and honey in their respective States, as it is customary for the Vice Presidents to make such reports at the annual meeting of our Society. I hope that none of them will fail to do so. I would be glad to meet them at the Convention, and become personally acquainted with them. Programmes will be sent to them for distribution to the bee-keepers of their States. N. P. ALLEN, Pres.

Report of Committee of Arrangements.

The Convention will be held in the Odd Fellows' Temple, East Main Street, between Market and Mulberry Streets.

The special reduced rates at hotels are as follows : St. Nicholas hotel, directly opposite the Odd Fellows' Temple, $1.40 per day ; Ashland House, $1.50 per day ; New Phœnix hotel, $2.50 per day (regular rate). All of the above are first-class hotels. Parties desiring private board, at $1 per day, can address a postal card to W. Williamson, Lexington, Ky.

Railroad fares are as follows : C. H. & D. Railroad, to Cincinnati ; Dayton & Michigan, to Cincinnati ; C. H. & Indianapolis, to Cincinnati ; Cincinnati, Richmond & Chicago to Cincinnati, Cleveland, Columbus & Indianapolis,—all full fare one way, one cent per mile returning. Cincinnati Southern Railroad, Cincinnati to Lexington and return, $4 ; all intermediate or local stations 2½ cents per mile each way ; from Chattanooga to Lexington and return, 2 cents per mile each way. Kentucky Central Railroad and Lexington & Big Sandy Railroad, all stations between Cincinnati to Lexington and Mount Sterling and Lexington, 2½ cents per mile each way ; Louisville C. & Lexington R. R., 2½ cents per mile each way.

A letter from the general passenger agent says : "At the time the Convention meets the Exposition in Louisville will be in full blast, and you can take advantage of the low rates made to the Mammoth Cave at that time." The regular rates to parties of 25 is $5.50 for the round trip ; but no doubt the excursion rate will be far below this figure. When a party of 10 is formed, the hotels and proprietors of the Cave make a reduction of 25 per cent. off regular rates, which are : Hotel, $3 per day ; Grand Route in Cave, nearly 20 miles, $3 each, including guides, etc.; Short Route, nearly 8 miles, $2 ; Chief City, 5 miles, $1 ; Mammoth Dome, 3 miles, $1 ; White's Cave, 2 miles, $1 ; the Grand Route includes all.

We should be pleased to receive a postal card from all who think they will attend, with suggestions that may be of interest.

If 100 or more wish to visit "High Bridge," the highest bridge in the world, at the low rate of 50 cents for the round trip, they may do so. This bridge is situated 22 miles south of Lexington, on the Cincinnati Southern Railroad, and spans the Kentucky river, surrounded with romantic scenery of natural beauty. If found necessary the Convention can adjourn on Friday morning, the 8th, at 10.30, as the train leaves Lexington for High Bridge at 11.30, and returns at 3.21, giving about 2 hours at the bridge ; those going north to Cincinnati need not leave the train.

The Cincinnati and Louisville Expositions will both be in progress. Those who can possibly do so are cordially invited to attend the Ky. State Bee-Keepers' Convention, which meets in Louisville Exposition Building, Oct. 12.

CHAS. F. MUTH, Cincinnati, O.
WM. WILLIAMSON, Lexington, Ky.

☞ Those sending articles for exhibition will please prepay freight or express charges, and send plain directions how to be returned ; if desirous of selling them, attach a card stating the lowest price in plain figures. I will cheerfully and impartially attend to exhibiting queens, bees, hives, and other implements for the apiary, of any kind, free of charge. I will exercise all due care, but will not be responsible for losses of queens or bees by death or accident. WM. WILLIAMSON.

PROGRAMME.

WEDNESDAY, OCT. 5.

MORNING SESSION.

10 to 12.—Convention called to order.
Reading minutes of the last meeting.
Reading of correspondence.
Calling the roll of members for last year, payment of annual dues, receiving new members, and distribution of Badges.
President's Annual Address.
Reports of Secretaries, Treasurer, Standing Committees and Vice Presidents.

AFTERNOON SESSION.

1 to 5.—Appointment of committee to nominate officers for the coming year, to report Thursday morning.

Addresses to be Followed by Discussion.

The New Bees—
Prof. A. J. Cook, Lansing, Mich.
Foul Brood among Bees—
C. F. Muth, Cincinnati, O.
Can Honey be made a Staple Product ?—
C. C. Coffinberry, Chicago, Ill.
Report of honey crop for 1881.

EVENING SESSION.

7 to 9.—Receiving new members.
Miscellaneous business.

Addresses to be Followed by Discussion.

Wintering—C. J. Robinson, Richford, N.Y.
Progressive Bee-Keeping ; or the Stepping-Stones toward Perfection—
Thomas G. Newman, Chicago, Ill.

☞ The rest of the evening will be devoted to a social interchange of views between those present on any topics desired.

THURSDAY, OCT. 6.

MORNING SESSION.

9 to 12.—Report of nominating committee.
Election of officers and Installation.

Addresses to be Followed by Discussion.

In-Breeding—P. P. Collier, Mexico, Mo.
Bee-Culture—past, present and prospective
—Rev. L. Johnson, Walton, Ky.
The Different Races of the Honey Bee; and their Geographical Distribution—
Dr. J. P. H. Brown, Augusta, Ga.
How to Prevent Swarming—
C. P. Dadant, Hamilton, Ill.
Obstacles to Progressive Bee-Culture—
G. W. Demaree, Christiansburg, Ky.

AFTERNOON SESSION.

1 to 5.—Balloting for time and place of next meeting.

Addresses to be Followed by Discussion.

A free-and-easy, go-as-you-please Recital of a Bee-Keepers' Holiday—
Rev. W. F. Clarke, Listowel, Canada.
Wintering Bees in Texas—
Dr. Wm. R. Howard, Kingston, Texas.
Swarms vs. Comb Honey—
Dr. C. C. Miller, Marengo, Ill.
My Experience ; or How I Learned to Handle Bees Profitably—
Dr. E. Drane, Eminence, Ky.

EVENING SESSION.

7 to 9.—Miscellaneous business.

Addresses to be Followed by Discussion.

The Honey Bee and its Relation to the Science of Economics—
Hon. Melville Hayes, Wilmington, O.
Social Interchange of Views on Miscellaneous Topics by those Present.

FRIDAY, OCTOBER 7.

MORNING SESSION.

9 to 12.—New business, resolutions, etc.

Addresses to be Followed by Discussion.

The Origin of the Present Races of Bees—
E. E. Hasty, Richards, O.
The Wintering of Bees—
C. F. Muth, Cincinnati, O.
Is Bee-Culture a Suitable Employment for Women ?—Mrs. L. Harrison, Peoria, Ill.
Bee-Keeping as a Business, or the Sole Vocation of an Individual—
W. J. Davis, Youngsville, Pa.

AFTERNOON SESSION.

1 to 5.—Reading of correspondence.

Addresses to be Followed by Discussion.

Breeding to Improve Bees—
C. J. Robinson, Richford, N. Y.
The Influence of Honey on Wintering—
Chas. Dadant, Hamilton, Ill.
Honey Bee Literature—What it Is, and What it Should Be—
Judge W. H. Andrews, McKinney, Tex.
An Essay (subject not yet stated)—
A. J. King, New York City.
Essays are expected from Wm. Carr, Newton Heath, England, and other European apiarists.
Final business, and adjournment.

By order of the
EXECUTIVE COMMITTEE.

THE AMERICAN BEE JOURNAL

THOMAS G. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., AUG. 17, 1881.

Maple Sugar.—Mr. W. F. Standish, Evansville, Wis., gives the following incident:

> Quite a large number of pails of "Vermont maple sugar" were sold in this village last spring. It being only 14 cents a pound, I bought one to melt up for syrup; but on melting it makes a sickish-tasting liquid, which has a thick, cream-colored sediment. We cannot use it, and a half pail of the "sugar" now stands in the cellar. It is fermenting and souring. Whether it is sugar or glucose, I want no more of it. I have no doubt that it would kill bees.

The trash you have purchased for maple sugar is evidently the *commercial* article—about seven-eighths glucose. It is a "favorite" with the adulterators, because it is so profitable. That "it kills" thousands of children every year does not trouble their consciences—"It is *business*, you know, and we cannot help the results; if we don't do it some one else will." This is the excuse we heard offered for such diabolical action, only a few hours ago.

◆

☞ We have received No. 1 of a new paper, published by H. A. Poole, Mechanic's Falls, Me. It is called the "New England Bee Journal and Home Gazette;" 4 pages are devoted to bee-culture and the other 4 to home matters, news, etc. The *Gazette* has our best wishes for success in all earnest endeavors to assist in elevating the science of bee-culture in New England and elsewhere.

◆

Local Fairs.—Bee-keepers attending fairs this fall should have a few bee-keepers' manuals, etc., with their exhibits. When taken in ½ dozen lots by express, for this purpose, we will supply any or all kinds, or one or two of each to make the half dozen, at 30 per cent. discount. If wanted by mail, add the postage. We do not send any "on sale or return." We will furnish copies of the BEE JOURNAL *free* for distribution at fairs.

◆

☞ On page 241, in the 3d paragraph of the article on "An Assistant for the Apiary," read "The top of this tool box is *hinged*," instead of shingled.

◆

☞ A single number of the Weekly BEE JOURNAL is often worth more to a bee-keeper than a whole year's subscription costs. Read what those who have taken it for years say on several pages of this JOURNAL.

◆

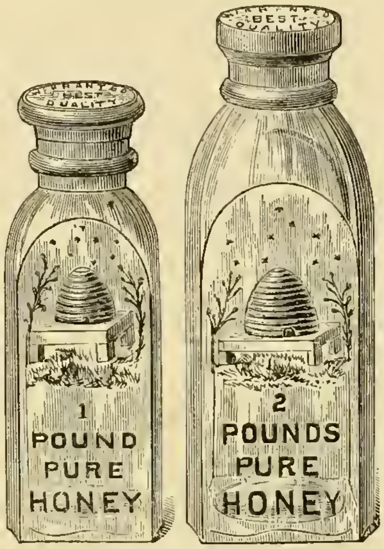
☞ We have prepared a SPECIAL edition of the BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Marketing Extracted Honey.

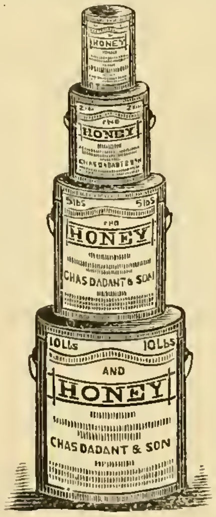
Mr. Wm. C. Carson, Addison, N. Y., asks for information concerning the marketing of extracted honey, and where he can obtain tin pails or cans, if such are suitable.

This is an important matter, for a good article, attractively put up, will always command the best price, and it is, therefore, of the utmost importance to producers to have honey put up in the best marketable shape.

Of glass honey jars there are two sizes, those holding, respectively, one or two pounds; these are very convenient and attractive for small consumers. Some also use the large glass jars, but we do not think they are as good as tin pails, such as are sold by Ch. Dadant & Son, for several reasons. We give the following from the pamphlet entitled "Extracted Honey," by Ch. & C. P. Dadant:



Glass Honey Jars.



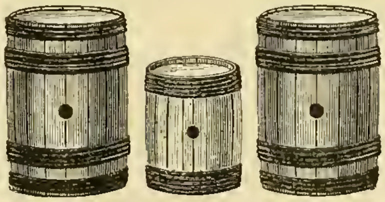
A Nest of Tin Pails for Honey.

> Having failed to succeed in the sale of honey in glass jars, on account of the regular granulation of our honey and its unattractive appearance in glass, since it looked like butter, or lard, or even worse, we concluded that the only thing to be used for small retail packages was tin. Small wooden packages were tried, and found inadequate, as the honey soaked or leaked, more or less, through any of the cheap packages that we could provide, unless they were coated with wax, which made them too expensive. But tin was entirely successful. We already had the 10-pound pail, but this was too large for a very large retail grocery trade. We had a 5-pound pail made, which, though half of the former, was still found too large. A pail half of this was then made. It was a pretty little thing—a real toy—and took well. But this was not small enough for some customers, and at the request of several grocers, we divided it again, and now had a box of 1¼ pounds.

Mr. Heddon used earthen crocks holding about 10 pounds, and he likes them very well; it is very convenient to take the honey from them when it is candied, or to liquify it by placing the crock in warm water.

For larger packages we know of nothing superior to the spruce or pine kegs. Of these there are 3 sizes, holding, respectively, 50, 100, and 160 pounds of honey. When compared with large barrels, holding from 300 to 500 pounds each, they are fully as cheap and often cheaper. They need no waxing, but should simply be thoroughly scalded with boiling water before being used. The leakage so often occurring in the large hard-wood barrels can be entirely prevented by using spruce kegs. Considering the cost and trouble of waxing, the loss of honey by leakage, and the ease with which these kegs can be handled and shipped, with an actual saving in original cost, it is apparent to all that they are the best. The smaller packages (jars or pails) should be labeled, and made attractive.

It is gratifying to know that during the *present* season extracted honey has been produced to a much larger extent than ever before. Without saying anything to the disparagement of comb honey, we may say that we think it will become a staple only in the *extracted* form. Its excellent qualities, when it is better understood, will bring it into almost universal favor.



Small Kegs for Honey.

Every bee-keeper should fully supply his own locality, and he should let it be distinctly understood that it is the pure honey taken from the combs by centrifugal force—that nothing is added to it, and nothing taken from it but the comb—that it is *not* the old-fashioned "strained honey," which was obtained by being taken from smashed brood-combs, and "strained" from dead bees, pollen, etc., but that it is the *pure* liquid gathered from the flowers, which will give health to the body, force to the mind, and strength to the intellect of those who use it.

It should also be kept before consumers that granulated honey can be reduced to its liquid state in a few moments by placing the honey in a jar in warm water. When thus liquified it so remains for some time before again crystallizing. Consumers may be sure of a wholesome article by purchasing granulated honey and reducing it.

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☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on this page. Every bee-keeper should take it.

Lecture at St. Joseph, Mo.

We have consented to give a lecture on "Bees and Honey," at the Court House in St. Joseph, under the auspices of the apiarian department of the St. Joseph (Mo.) Inter-State Exposition, on Thursday, Sept. 8, 1881, at 8 p. m. R. S. Musser, Esq., the Superintendent of the department of apiculture, seems determined not only to have a very fine display of bees, honey, apiarian implements, etc., but also to try to elevate the science and beget a progressive spirit in the honey producers of the Missouri Valley.

We hope to see a large number of the intelligent bee-keepers of the Missouri Valley at this meeting; we shall endeavor to elucidate many points of interest to those who keep bees and produce honey. Let there be a general rally.

We have been solicited to lecture on apicultural matters at several points in Iowa, Nebraska, Kansas and Missouri, but shall be unable to do so this fall, as we have other engagements.

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The Honey Harvest of Switzerland.—The *Bulletin D'Apiculteur*, published by Mons. Bertrand, in Nyon, Switzerland, has an extended review and copious extracts from the pamphlet on Extracted Honey, by C. H. & C. P. Dadant. In a private letter, the editor of that paper remarks as follows:

> We have had a very hot summer, with no rain for seven weeks. A few nights since we had several earthquakes. Such a state of things has not occurred since 1793. On account of the cold winds in April and May, our early crop of honey was only one-half of the average; but our mountain crop will be very good. I expect this year to obtain only about 3,000 or 3,500 pounds in my three apiaries.

Mr. Bertrand (our friend and co-laborer) is one of the most scientific and progressive apiarists in Europe. He manages his bees in true American fashion, and closely watches all our improved methods in bee-culture and for obtaining honey. He adds: "The Weekly BEE JOURNAL (though it is a monthly when it comes to me) pleases me very much, and I could not do without it. It is, for me, THE STANDARD."

◆

Honey and Bee Show in Canada.—At the Toronto Industrial Exhibition, Sept. 5–17, prizes for "Honey and Apiarian Supplies" are to be given to the extent of $115, besides two medals and six diplomas.

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☞ The *Planters' Journal*, published at Vicksburg, Miss., is one of the finest monthlies in the United States. The August number is a model of perfection, and a credit to "the art preservative." We wish it abundant success.

◆

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—a Binder for 1882.
" " **4**,—Cook's Manual, paper.
" " **5**,— " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

◆

☞ The Ninth Grand Exhibition of Art and Industry will be open for the reception of articles on Wednesday, Aug. 17, to Tuesday evening, Sept. 6. Open to the public from Wednesday, Sept. 7, to Saturday, Oct. 8.

Unbusiness-like Transactions.

Having received many complaints from the patrons of H. A. Burch & Co., concerning very long delays in filling orders, and broken promises, we have written them many times, urging them to more punctuality. We desired not to unnecessarily bring these matters before the public, preferring to get them settled in a private way, but the complaints became so numerous that on August 1 we wrote that firm, entreating them to satisfy their patrons, and added:

> It will not do simply to say Mr. B. has been sick; there is a "Co." who should see that things move along right, and satisfy customers. You assured me before I commenced to advertise for you (in February, 1881) that you would "*fill all orders promptly*," or I should not have inserted your advertisement.

We give Mr. Burch's reply in full, as follows:

> Editor Bee Journal: In answer to yours of Aug. 1, I will say that we regret exceedingly that you should be "annoyed" by complaints of us and our business. The loss of our bees last spring was a heavy blow to us, financially, necessitating purchasing largely to fill our orders. This put us back somewhat, although June 1 found us restocked and in shape to begin business in earnest, but 2 weeks of cold weather in June delayed us still more. Then it came off very hot, and bees swarmed to such an extent that we could do little shipping during the remainder of the month. Then the hives were crowded with honey, which had to be extracted before bees could be safely shipped any distance. This made it very slow work indeed, and as we were unable to procure sufficient suitable assistance, we got further and further behind. Notwithstanding, I have worked day and night for the past 3 months, having nearly ruined my eyesight writing nights, we are still behind. We are still shipping bees, but it goes slowly; have returned all the money we can at present, so much so that we have not enough left to meet our bills. Now, to sum up, we have done all we possibly can for our customers, and if you can suggest any better plan than that of keeping steadily at work and working out of the dilemma, we should be very grateful.
>
> The course pursued by Novice, and other parties, has materially delayed us, as many parties have obtained the idea they would lose their money, and we have been more than "annoyed" by their threats and importunities. You can perhaps imagine how one feels who is behind, yet honestly striving to do his utmost to be just to all, to be misrepresented as we have been. Now do with us just as you think right. If you feel like saying in the Bee Journal that you regret our being so much behind, but are assured that we will make all satisfactory so far as lies in our power, we shall feel grateful. My partner has been away since last February. Will remit amount of your bill at earliest date we can do so.
>
> H. A. Burch.

We are well aware of the troubles that came from the losses of bees, and unpropitious weather for queen-rearing, but the complaints cover the filling of orders for sections, comb foundation, etc.

In all cases, where orders cannot be filled in a reasonable time, the money should be cheerfully refunded. Mr. B. asks if we can suggest some better plan than the one he is pursuing. If he has used the money belonging to his patrons would it not be *better* to borrow enough money on his bees, supplies, stock, farm, or whatever he has, and pay back those whose money he has used for other than the purposes they sent it, and that, too, without their knowledge or consent?

We have no desire to injure anyone, especially any who are trying to do right, and hence we have labored long and earnestly with H. A. Burch & Co., for their own benefit, urging them to make peace with their patrons, and we *do hope* that they will act promptly and save their credit as business men.

Not wishing to burden the Journal with the detailed complaints, we omit them, and simply refer to them in bulk.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Bees and Cider.—Mr. L. C. Root in the *American Agriculturalist* says:

> Another correspondent suggests that the losses in bees during last winter were largely due to the fact, that from the great abundance of apples, bees appropriated cider quite extensively during the fall. It is unquestionable that the juice from such quantities of decaying fruit, as well as the cider gathered in the vicinity of cider mills, would have a deleterious effect upon bees. While this can hardly be considered as the main cause of our heavy losses, all will agree that *all* conditions must be most favorable during such severe weather, if success is to be attained. Good, well cured and sealed honey is essential, and where cider is gathered in abundance late in the fall, this condition can hardly be secured.

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Use for Propolis.—Mrs. L. Harrison, in *Gleanings*, says:

> I use it in many ways, and there is scarcely a day that I do not use it in something. I noticed yesterday, that bees were in a cap of a hive, and on examining found that they came in through a hole in a honey-box. I got some propolis, worked it up soft with my fingers, and spread it over the hole. If I saw off a limb of a tree, I cover the wound with it, to keep out insects and rain. If the dipper leaks, it is soon mended with it, and the wash-basin can be cured of its leaky tricks by having a thin coating rubbed on the bottom. Old pans and dippers, used for dipping slops and feeding chickens, would be much better, if their holes were mended in this way. Some roofs leak around chimneys, which can be stopped by rolling up propolis into little rolls, and fitting it nicely into the crevices, so that the shingles and bricks are glued together, leaving no cracks for water to run through.
>
> Some have parasols or umbrellas with a carved fish or dog's head on the end of the handle for ornament. We have one, and on the 4th of July our dog's head came off; We worked some propolis then, and wrapped the handle in it, and put on the dog's head again, cleaning off all propolis that oozed out, after pushing it on. To-day we tried to pull it off, but it was no go; it was just as if it had grown there. Who will try propolis for budding and grafting? Lucinda Harrison.
>
> Peoria, Ill., July, 1881.

◆

Good Report from Texas.—The Texas *Agricultural Journal*, a new Monthly published at Hempstead, Texas, gives the following report from Mr. B. F. Carroll, of Dresden, Texas:

> I had twenty colonies to commence with; had the first swarm that came out, in the state—and this was all. I increased to 53 colonies by artificial swarming, and have a surplus of 100 pounds per old colony. My best colony has brought me, in dollars and cents, $21.20, or 106 pounds choice comb honey at 20 cents per pound. I can sell all my extracted honey at 15 cents a pound. Three colonies of bees will produce as much, in dollars and cents, as 2 acres of cotton. One man and a stout boy can attend 150 colonies. These will average 50 pounds, one year after another, and at 15 cents, gives $1125.00. Can a man and a boy do this raising cotton.
>
> In the neighborhood of Waxahatchie I found 600 colonies of bees, and in my neighborhood about 300. All doing well; mostly blacks. I have now on my yard Cyprian, Syrian, Italian, German and Hungarian Bees. I cannot yet tell which are the best—they are all good.

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Honey Show for Canada.—The *Canadian Farmer* advises the Ontario Bee-Keepers' Association to offer a variety of premiums for honey at the exhibition, at Toronto, this fall, and adds:

> A prize should be given for extracted honey done up in the best marketable shape in glass, tin and wood. Comb honey might be divided into three classes, box-honey, section-boxes, and whatever other form may commend itself to the judges. This would give scope for much variety. In addition to the above there should be prizes for implements for apiarian use and also for fruit preserved in honey, as well as other things in the manufacture of which honey is employed. We trust that the display this season will far surpass that of any previous year both in the number of exhibitors as well as the variety of forms in which the honey is presented, so that the public may be made to feel the importance of this infant industry and encouraged to assist in its further development. One of the principal objects of the association is to show the advantage the country may derive from greater attention being paid to bee-keeping, and in no way can this fact be brought home to the general public so forcibly as by the members uniting to make the display in the apiarian department of the exhibition a grand success.

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Superiority of Italian Bees.—Mr. J. B. Mitchell in the Hawkinsville (Ga.) *Dispatch* says:

> Their good qualities are now conceded by all who have tried both varieties under similar circumstances, and they are rapidly taking the place of the blacks in all parts of the country.
>
> They are more active than other bees, making three flights in the time that the black bees make two; they are more hardy, working earlier and later, and in cooler weather; they gather honey from flowers which are not frequented by black bees; their queens are more prolific, so that they may be increased much faster with safety; they gather more honey and give more swarms in the same length of time, and are more gentle and easily handled than black bees.
>
> Their chief point of excellence, and one that is worth everything to bee-keepers in the South is, that they readily and successfully defend their hives against the depredations of the bee moth. A strong colony of Italians is worth more as a protection sgainst this pest than all the moth-proof hives and moth traps that were ever invented.

◆

A Houseful of Honey.—A Special Dispatch to the Chicago *Tribune* gives the following particulars of a hive, which is probably large enough to satisfy any one:

> Streator, Aug, 4.—A few days ago Mr. Adam Diller, a wealthy farmer living a few miles east of here, had occasion to visit an old dilapidated dwelling that stood on the back of his farm, which had for a long time been unoccupied, when he was quite surprised to find that it had been taken possession of by an enormous colony of bees, and from appearances they had been there some time, as the walls were full of honey-comb and the industrious little fellows were hard at work filling the cells with the sweet juices. Your correspondent visited the hive last evening, and would judge that there must be at least a ton of honey there. Mr. Diller says he will not disturb them, but will give them full play in their extensive home.

◆

Importing Queens.—Mr. D. A. Jones, thus describes his method of shipping Cyprian queens, in the *Canadian Farmer:*

> It is a very difficult matter to import them to this country. The colonies I bought in Palestine I had sent down to the coast, and then forwarded by steamer to Cyprus. There they were transferred from the cylinders into movable frame hives. I then made a box about 4x5x6 inches out of pine lumber. I put a screen on the bottom and one in the top, each about 3 inches square, to let the air pass through. In one end of the box I fixed a bottle filled with water, and having a cork through which a cutting was made for a wick. Through this cutting I drew a cotton wick, and by capillary attraction this wick is kept wet with water and the bees drink and then eat some granulated sugar, which I fastened upon the other end of the box by pouring it in hot and allowing it to cool. Between the bottle and the sugar I had a comb with a little syrup in. There was a queen and from 160 to 300 bees in the box. I had a crate made to hold 27 of these boxes, and they were separated from each other about an inch and a half, so that a current of air always passes around every box. I have some bees that were kept 6 weeks in that way, and during the whole time they had but one chance to fly, and that was when I arrived at London. Some of the bees appeared to need this, and others did not. The water was very bad, and I have given instructions that in future consignments the water should be boiled before being put into the bottle; this will purify it.
>
> The best course for a man to pursue who wants to keep bees, simply to get honey enough to supply his own family, is to get 5 or 6 hives and read up Cook's Manual of Bee Culture; and if he writes to me I will give him all the information I can. Cook's Manual is decidedly the best manual on bee culture which has been published.

◆

Prospect for Fall Honey.—The *Indiana Farmer* gives the following as the prospects for a fall crop of honey in Indiana:

> The bees have commenced getting some honey again and in spite of the exceedingly dry weather of the past 6 weeks the prospects for a good fall crop of honey are quite flattering. All sections or boxes that are part full of white honey should be removed, especially so where well capped over. Sections partially filled with white honey and finished with buckwheat or dark honey, do not look well, and will only bring a correspondingly low price in the market. If you want to use the sections partially filled with comb, remove the white honey with the extractor, or, in the absence of the extractor, uncap the honey, so in finishing up again they will make the cappings all alike.

◆

☞ The North Eastern Wisconsin Convention meets at Pewaukee, Wis., instead of Berlin, as at first announced. It meets on Oct. 11 and 12, 1881. Those in that vicinity should make a point of attending.

◆

☞ The Southern California District Bee-Keepers' Association will hold its annual meeting in Los Angeles City, Sept. 8, 9, and 10, 1881. All persons interested in bees and honey are respectfully invited to attend.

J. E. Pleasants, *Pres.*
Anaheim, Cal.

SELECTIONS FROM OUR LETTER BOX

The Cyprian Bees.—I bought an imported Cyprian queen of Mr. D. A. Jones about a year ago, but not being prepared to rear as many queens from her last season as I wished to, I took her to my friend, A. T. Williams, of St. Charles, Mo., who reared from her a number of queens for himself, and 8 for me. This spring I sold the imported queen to him, and he has been rearing queens from her for both of us all this season. I have now over 50 in my yard, and expect to have one in every one of my 95 hives before cold weather sets in. I like them very much. My experience with them is very different from that of Mr. Hayhurst. I can handle them as well as the Italians. It is very likely that all the Cyprian queens I now have have mated with Italian drones. It will take 2 or 3 years to tell the relative merits of the two races.
A. W. WINDHORST.
Ferguson, Mo., Aug. 9, 1881.

The Causes of Loss in Winter.—Bees have done remarkably well here since the first blossoms in the spring until within the last 2 weeks. The dry weather at present will seriously affect the fall crop of honey. I have thought of saying something about the cause of severe losses last winter, but so many have hit the point it is hardly worth while. The long continued cold with poor honey is about all that can be said. I think poor honey the main trouble. In some cases the honey soured in the combs; good rich honey will not do that. We had the same trouble 9 years ago, when one of my neighbors lost 72 colonies in an above-ground cellar, where he had previously wintered successfully. The honey and pollen soured, and foamed out of the cells.
L. C. WHITINO.
East Saginaw, Mich., Aug. 4, 1881.

Kingbirds.—Before we commence a war of extermination on these birds we should be sure that they do more harm than good. We recently saw a kingbird alight on the dead limb of a cherry tree and then fly off and catch a rose-bug, which it brought back, and ate a part of it and dropped the rest. It kept this up for some time. We watched it awhile, and counted over 50 rose-bugs that it caught. There were bees flying to and from their hives under the trees, but I did not see it catch one. If the kingbirds would do nothing more than to keep the rose-bugs thinned out, so that we could do away with poisoning and picking them off by hand, to save our fruit, vines, trees, etc., from its ravages, we might well spare a few thousand bees, if the birds want them. I think the time spent and money for powder and shot to kill birds with, costs more than the damage they do to the bees. W. C. JEMISON.
Natick, Mass., Aug. 3, 1881.

Half a Crop of Honey.—Bees did well in Jasper county early in the season, but a local drouth has cut the honey crop in two; half a crop is all that can be reported. From 13 colonies, mostly light in the spring, I have taken 405 pounds—100 pounds 2-pound sections; the balance extracted. They still have honey enough to winter if they hold their own from this time until winter. M. LEIDY.
Carthage, Mo., Aug. 4, 1881.

Our Experience with Cyprian Bees.—We want to get rid of them as fast as possible. It is impossible to control them. When their anger is aroused you cannot get them quiet; smoke is useless, unless you put sulphur in the smoker. My son opened a Cyprian colony at one of our apiaries; they stung every animal around the apiary, ducks, chickens, etc. They went inside the house to sting the good woman, who was quietly sitting in her chair. You cannot look in front of a Cyprian colony without being assailed; you cannot move a block at the entrance without 5 or 10 bees darting to your face, like sparks from fireworks. While extracting, my son received hundreds of stings from them. We do not want any more such bees, even if they were better than Italian bees—and this is not proven to be the case. My grandchild was assailed by these furies while standing in front of one of the hives. I hastened to bring him into the house, and was, of course, followed by a cloud of angry bees. After 15 minutes or more, while we were still bathing his head, we were again assailed by these bees, who were angry at not finding their way through the window. They do not know how to gorge themselves with honey when you smoke them; they shake their wings, and fly to sting. They act exactly as the Egyptian bees do, and are, no doubt, of the same family.
CHAS. DADANT.
Hamilton, Ill., Aug. 5, 1881.

Short Crop of Honey.—Had a poor honey season—not more than ¼ the crop of last year, on account of long drouth. Bees have a plenty to keep them through the winter, if they make no more. If it rains soon there will be a good crop of bitter honey this fall.
E. P. MASSEY.
Waco, Texas, Aug. 2, 1881.

The Mint Family.—I send, by mail, a sample of a plant for name. No one here knows what it is. It gives every indication of being a grand honey plant, of long-blooming duration, and we wish the name and its tenacity to the ground given through the BEE JOURNAL. JAMES HEDDON.
Dowagiac, Mich., Aug. 8, 1881.

[This is *Brunella vulgaris*—self-heal or heal-all. It belongs to the mint family. It is a common perennial, about a foot high, or much less on poor land. I have before received it, as a bee plant, as in fact I have a large number of different species of mints, such as catmint, germander, spearmint, bugleweed, several basils, marjorum, thyme, calaminth, balm, pennyroyal, horse-balm, sage, bergamot, scutellaria, horehound, hedge-nettle, motherwort, dead-nettle, and others. The plant above referred to, is considered quite a weed in some meadows and lawns.—PROF. W. J. BEAL, Michigan Agricultural College.]

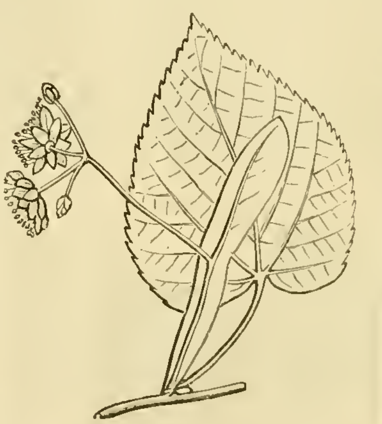
Honey Crop in California.—This is a poor season for honey; many bee-men will do well if they carry their bees through without a general loss. Very few have extracted any this season, and only in limited quantity.
MRS. SARAH A. FAIRCHILD.
Pomona, Cal., July 21, 1881.

Cyprian Bees Handsome and Gentle.—My Cyprian queens from Mr. Jones arrived too late for me to get a correct idea of their qualities this season. They are, most certainly, the prettiest bees I have seen, and as gentle as any to handle. CHAS. F. MUTH.
Cincinnati, Aug. 10, 1881.

The Honey Harvest.—The very hot weather of the past week culminated, last night, in a terrible wind-storm, followed by a light shower. For 2 days the thermometer reached 102° in the shade. Notwithstanding the long-continued hot weather, honey has been coming in quite steadily. My colonies that have been run for comb honey have averaged about 45 pounds each, of the very best quality of clover honey. I think that they would nearly have doubled this if I had not "divided the colonies" at the beginning of the clover harvest. My increase will be about 300 per cent., nearly all by division. With plenty of rain we will have quite a long fall harvest of golden rod, etc. The Weekly is indispensable.
HARRY G. BURNET.
Blairstown, Iowa, Aug. 6, 1881.

Basswood, Bee-House, etc.—When is the right time to plant basswood, and how should it be cultivated? The forests on the creeks are being cut away, and there is none on the Mississippi bottoms. I will give a description of my bee-house, in which I have wintered successfully for 6 or 7 years. Last winter I lost 3 colonies—one a nucleus, one starved, and one with plenty of honey. The house is 16x16 feet, by 10 feet high; studding 2x8 inches; lined with the cheapest lumber; outside boarded up and down; space of 8 inches filled with sawdust; 6-inch square ventilator in north and south end, just above the floor; floor 12 inches above the ground; filled below with sawdust; one ventilator in the center; ceiled with cheap lumber, filled in with sawdust, and covered with cheap shingles; door filled. The house is also very handy for summer use. I commenced this spring with 2 colonies, and now have 9. Success to the BEE JOURNAL. J. S. JACKSON.
Keithsburg, Ill., July 24, 1881.

[Basswood or linden (*Tilia Americana*) is indigenous to a large portion of the North American continent; growing, often, to a very large size, and vieing with other forest trees in height. It is quite hardy, and grows readily and thriftily from the seed.



Leaf and Blossoms of Basswood.

We have heard of its blooming and secreting honey in 6 years after planting. The seeds should be sown in drills and cultivated for one year, then transplanted, setting from 10 to 14 feet apart each way. It prefers the proximity to water-courses, bottom-lands, and gravelly soils in which water stands near the surface the whole season through. It would be most satisfactory to transplant yearling seedlings from the bottom-lands. It possesses a magnificent foliage, and is a great favorite with the bees.—ED.]

Robbing, a Fine Art.—Taking everything into consideration, we are having the poorest honey season for years past. The season was good from the middle of May until June 20, about 4 weeks. Our bees were not strong enough at the time to do much in the way of surplus. First, too much rain, then excessive hot weather—106° in the shade was not uncommon. To sum it up in a few words, rain, heat, and drouth has shortened our honey season at least 4 weeks. The drouth still continues at this writing (Aug. 9) and we have bees by the bushel to consume the winter stores, and to practice the art of robbing. Cyprian bees are no "sneak theives," they just walk over the dead and the dying like Roman soldiers shod with iron. We hope to civilize them, bye-and-bye.
G. W. DEMAREE.
Christiansburg, Ky., Aug. 5, 1881.

Immense Yield of Honey from Basswood.—The basswood bloom closed with July, and it has produced one of the largest yields of honey I ever knew. I have 106 colonies in good condition. M. S. SNOW.
Osakis, Minn.

Honey Crop Flush.—The honey crop is flush in this locality. The flow of honey from the linden was fair, and from white clover it was excellent.
J. VANDEUSEN.
Sprout Brook, N. Y.

Short Crop of Honey in California.—The honey crop of this State will be short this year. The Weekly BEE JOURNAL is very much appreciated here in California. The universal report is: "I like it even better than I thought I should." Go on with your improvements; we, out here, will be fully satisfied with your excellent judgment. J. D. ENAS.
Napa, Cal.

Bees Booming.—Bees were booming during July,—all else was at a standstill. W. P. HENDERSON.
Murfreesboro, Tenn.

The Queen's Marriage Flight.—I saw a queen and drone together a few days ago. When I first saw them they looked to me like a small ball of bees, moving in the air. They were not over 10 feet high, gradually coming to the earth; they lodged on a weed that had been cut down and was leaning against a fence rail, and separated; the drone flew to the right and the queen to the left. What I saw took place in less than a minute. Our honey yield was not large here, although it was the best honey season for years. Bees were too much reduced in numbers to gather and make it profitable to their keepers. J. T. WILSON.
Mortonsville, Ky.

Bee-Keeping Does Pay Better Than Farming.—About 60 per cent. of the bees died in this neighborhood last winter; I lost 1 out of 9, all in box hives on their summer stands unprotected. They have now increased, by natural swarming, to 29. I have 7 of them in movable frame hives. I do not know anything about foundation, extractors, or anything else concerning bees, but if I do not get the enthusiasm all taken out of me I intend to learn. My bees are all blacks; they are always hunting for something to quarrel with, but I could manage them without smoke, if I only understood what to do for them. There has been a continual flow of honey here since the 1st of May, and I have a good location for an apiary. If I understood the business I think it would pay better than farming, or anything that I could do.
BLAKE BAIRD.
Cush, Penn., July 16, 1881.

Cheap Fares.—On the 5th of Oct. (the day the Convention meets) the Cotton States Exposition opens in Atlanta, Ga.; round trip fare from Chicago to Atlanta will be $15. Tickets good, I suppose, till the close of the Exposition, in December. Now, you see, the bee-keepers in the North and West can have no excuse, on the score of high fare, from attending the Bee-Keepers' Convention. On the same ticket they can lay over at Lexington, for a few days. Just think! only $15 round trip from Chicago to Atlanta, *via*, Lexington. J. P. H. BROWN.
Augusta, Ga., Aug. 6, 1881.

Too Wet or Too Dry.—In May and June it was too wet, now it is too dry for honey gathering. Bees are storing a little from buckwheat on the mornings when we have any dew.
A. J. ADKINSON.
Winterset, Iowa, Aug. 9, 1881.

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.
N. E. FRANCE, *Sec.*, Platteville, Wis.

SPECIAL NOTICES.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

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☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

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☞ When changing a postoffice address, mention the *old* as well as the new address.

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Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆

Photographs of prominent Apiarists—Langstroth, Dzierzon, and the baron of Berlepsch.—Price 25 cents each.

◆

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

The Beauty and Color of the hair may be safely regained by using Parker's Hair Balsam, which is much admired for its perfume, cleanliness, and dandruff eradicating properties. 31w4

◆

Nearly all the ills that Afflict Mankind can be prevented and cured by keeping the stomach, liver and kidneys in perfect working order. There is no medicine known that will do this as quickly and surely, without interfering with your duties, as Parker's Ginger Tonic. See advertisement. 31w4

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A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

◆

Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. It will pay to devote a few hours to the BEE JOURNAL.

◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T.G.Newman)		$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00	2 75
Bee-Keepers' Magazine (A.J.King)	3 00	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75	2 50
The 4 above-named papers	4 75	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50	2 35
Kansas Bee-Keeper	2 30	2 15
The 7 above-named papers	6 05	5 00
Prof. Cook's Manual (bound in cloth)	3 25	3 00
Bee-Culture (T.G.Newman)	2 40	2 25
Binder for Weekly, 1881	2 85	2 75

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Be Journal, $1.50 less.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Oct. 4—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
6—Union Kentucky, at Shelbyville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
5-7—National, at Lexington, Ky.
12—Kentucky State, at Louisville, Ky.
11, 12—Northern Michigan, at Maple Rapids.
O. R. Goodno, Sec., Carson City, Mich.
11, 12—Northeastern Wis., at Pewaukee, Wis.
Frances Dunham, Sec., DePere, Wis.
12—Central Ky., in Exp. B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
25, 26 Northwestern District, at Chicago, Ill.
C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
Nov. 29—Eastern N. Y. Union, Knowersville, N. Y.
N. D. West, Sec. Knowersville, N. Y.
30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.
1882.
Jan. 25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May ——Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—But little comb honey is yet upon the market, and the quotations are rather premature. New extracted honey is quite plentiful, and in good demand.

We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 7@9c.

BEESWAX—Prime quality, 18@23c.

NEW YORK.

HONEY—New white honey in the comb, in 1 or 2 pound boxes, will bring 18@22 cents, though but little is offered yet.

White extracted, 7@10c.; dark, 7@8c.

BEESWAX.—Prime quality, 18@22c.

CINCINNATI.

HONEY.—A few small lots of comb honey have made their appearance on our market, which I bought at 12@15c. per lb. I have very many offers, but there being no demand yet, I have not commenced to lay in my supply. Extracted honey ranges from 7@9c., on arrival.

BEESWAX—18@22c. C. F. MUTH.

SAN FRANCISCO.

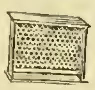
HONEY—There is some inquiry, but difference in views between buyers and sellers prevents any movement except in a retail way. With present light stocks holders see no necessity of crowding offerings upon buyers.

We quote white comb, 13@15c.; dark to good, 10@12c. Extracted, choice to extra white, 8@9c.; dark and candied, 6@7c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., Aug. 6, 1881.

☞ The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting Aug. 30, at Rock City, Stephenson Co., Ill. JONATHAN STEWART, *Sec.*

FLAT-BOTTOM
COMB FOUNDATION,



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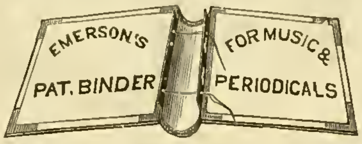

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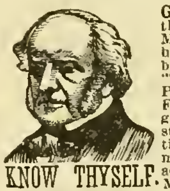

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THOMAS G. NEWMAN,
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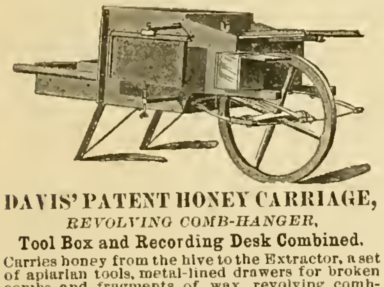
☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. GOODNO. *Sec.*



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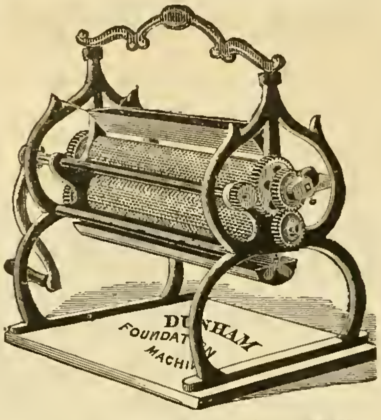

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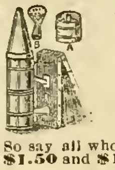

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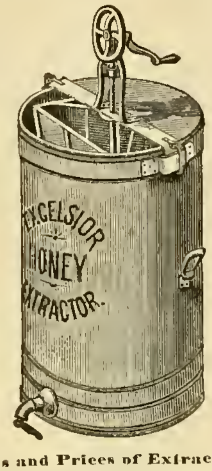

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31w3t

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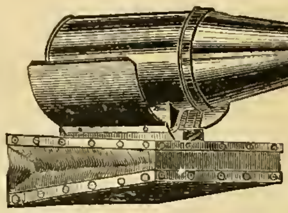

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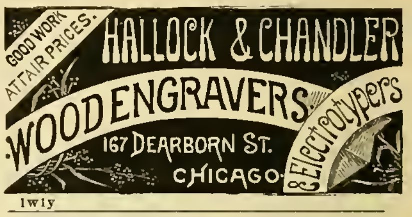

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THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., AUGUST 24, 1881. No. 34.

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Published every Wednesday, by

THOMAS G. NEWMAN,

EDITOR AND PROPRIETOR,

974 WEST MADISON ST., CHICAGO, ILL.

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What and How to Plant for Honey.

A correspondent asks the following questions :

I want to plant extensively of honey-making plants, but I need some information. Could you not give information through the columns of your paper on the cultivation of the different grasses, the latitude to which they are adapted, soil required, etc.; it would be valuable to many in these regions ; state how they will do in orchards, woodland, pastures, or meadows, on drained lands, etc. I want to purchase seeds next fall, but I am much in need of information, and hope you will give it to me. P. M.
Poplar Grove, Ark., Aug. 8, 1881.

As bee-keeping has heretofore been conducted in this country, the expansion of civilization has every year curtailed its reliability. As forests have trembled and fallen, under the sturdy blows of the woodman's axe, so have the facilities for early and vigorous spring breeding been lessened, and the probability of a lighter yield of linden honey been rendered more certain ; as the green, flower-bedecked prairies and woodland openings have been transformed into fields of golden grain, so have been added to the certainty of a light honey crop ; every marsh and waste-place reclaimed, has wrenched its tribute from the sweet store of the toiling bee ; scientific agriculture has made bee-keeping, year by year, a more precarious occupation, and confirmed many apiarists in the opinion that bee-keeping "does not pay." Nor would stock-raising be remunerative, if the cattle were deprived of their grazing land ; sheep-rearing would be unprofitable, if they were robbed of their pastures ; and even market-gardening would cease to give satisfactory returns, if the specialist were to neglect stimulating the soil from which to obtain his bountiful returns.

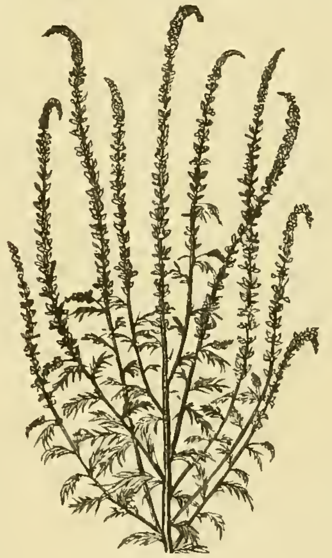
Of course, with the natural and artificial increase of bees, and the civilizing destruction of nature's spontaneous flora, bee-keeping has become yearly more precarious, and we quite frequently hear inquiries for good locations for apiaries, and complaints of over-stocking. To be sure, white clover accompanies cultivation, and we can never weary in admiring its beauty and excellence, but this season has demonstrated, as have many others, that we cannot depend upon one source alone for satisfactory profits. Never was it more abundant, over so wide a range of territory, as it has been this season, but a few days of cold rains here, or bees too light to gather it there, or continuous adverse winds somewhere else, have changed many bright dreams to sad realities. With a general heavy bloom, but little honey has been obtained from linden.

We cannot understand how any one can mistake his duty to provide pasturage, if profits are expected ; nor how a humane, generous-hearted bee-keeper, can increase his numbers of bees without making some provision against starving. No person can view our streets lined with sweet clover, or listen to the busy music of the many bees amongst its sweet-scented foliage, without being convinced that *it will not only pay to plant for honey*, but that *every dollar expended for sweet clover seed will be repaid by the bees with compound interest.* For several seasons we have eagerly and selfishly observed this plant, and are persuaded that as a supplemental honey plant, everything considered, it *has no superior, if an equal*, in America. Now that honey is a staple article of export, and prices are rapidly becoming staple, this plant will, more than any other, make it a staple crop. Give it a liberal trial.

But many are not convinced (and do not wish to be) that honey alone will amply repay for special planting. To such we recommend any of the clovers, especially white and alsike. They are both excellent for grazing, and the latter desirable for hay. Alfalfa is also highly recommended.

We are often asked to give the name of some annual that we can recommend as an excellent honey producer, of sufficient hardiness to withstand excessive rain and drouth, and which will thrive in fence corners and out-of-the-way places without special cultivation.

After several years of close, careful observation, we are more than confirmed in the good opinion we formed and expressed two years ago regarding the good qualities of *Reseda grandiflora* (mammoth mignonette), as an excellent honey plant. It is a plant of vigorous, rapid growth ; having a strong, deep-penetrating tap-root, it is very tenacious in its hold upon the soil, and will grow, and bloom, and yield a rich return of beautiful nectar under the most adverse circumstances ; with a sharp, pungent taste, not unlike horse-radish, the foliage is not a favorite resort for spiders or insects. Before white clover has fairly passed its maximum of excellence, the graceful and modest blossoms of the mignonette will have won the preference of the discriminating bees. The flowers are thickly studded on the points of curving racemes, and as the base matures its many pods well filled with diminutive black seeds, the point is daily presenting a succession of fresh bloom, which continues until winter has fairly set in, thus providing each fair day a nectar flow, despite the drenching rains which may precede.



Reseda Grandiflora.

It is not unusual to see racemes 3 ft. or more in length. The roots, in taste, are a counterpart of horse-radish. The foliage is not at all similar to *Reseda odorata*, and is said to be an excellent table salad. We hope every bee-keeper will give it a fair trial. Plant early in the spring.

Sweet clover is said to make an excellent dressing for the soil, some asserting its superiority to red clover, and when stock are educated to it as a forage they eat it quite as readily, and thrive upon it.

If honey is the principal desideratum in planting, then harrow in sweet clover this fall, and as you will derive but little if any honey from it next season, in early spring harrow in some mammoth mignonette on the same soil, which will commence blooming in June, and astonish you with the excellence of its honey.

The latter, like sweet clover, will thrive upon and yield a rich return from any soil, wherever it can have a half a chance.

But do plant something—anything ; if your bees cannot have the first and long-continued harvest from sweet clover, they will thank you for gleanings from the cattle and sheep pastures, and without murmuring eke out a bare existence on the proscribed thistles and burdocks, until nature, unmolested by man, bedecks herself in her autumn robe of flowers.

◆

☞ It will be seen, by reference to the Local Convention Directory, that the time of meeting of the Eastern N. Y. Bee-Keepers' Union, has been changed from Nov. 29, to Sept. 27.

◆

Local Fairs.—Bee-keepers attending fairs this fall should have a few bee-keepers' manuals, etc., with their exhibits. When taken in ½ dozen lots by express, for this purpose, we will supply any or all kinds, or one or two of each to make the half dozen, at 30 per cent. discount. If wanted by mail, add the postage. We do not send any "on sale or return." We will furnish copies of the BEE JOURNAL *free* for distribution at fairs.

◆

☞ An error occurred on page 250 of the BEE JOURNAL for Aug. 10. In referring to Rocky Mountain bee plant we inadvertently stated that it was a biennial ; it should read "annual."

◆

☞ Mr. G. M. Doolittle, in a private note, remarks as follows : "My report of this year's honey crop will be favorable, notwithstanding poor white clover and basswood harvests, as well as sickness in my family and being over-worked myself."

Michigan Adulteration Law.

The following is the full text of a bill just passed by the Michigan Legislature "to prevent and punish the adulteration of articles of food, drink and medicine, and the sale thereof when adulterated:"

Section 1. *The people of the State of Michigan enact*, That no person shall mix, color, stain or powder any article of food with an ingredient or material so as to render the article injurious to health, with the intent that the same may be sold; and no person shall sell or offer for sale any such article so mixed, colored, stained or powdered.

Sec. 2. No person shall, except for the purpose of compounding in the necessary preparation of medicine, mix, color, stain or powder, or order or permit any other person to mix, color, stain or powder any drug or medicine with any ingredients or materials so as to affect injuriously the quality or potency of such drug or medicine, with intent to sell the same, or shall sell or offer for sale any such drug or medicine so mixed, colored, stained or powdered.

Sec. 3. No person shall mix, color, stain or powder any article of food, drink or medicine, or any article which enters into the composition of food, drink or medicine, with any other ingredient or material, whether injurious to health or not, for the purpose of gain or profit, or sell or offer the same for sale, or order or permit any other person to sell or offer for sale any article so mixed, colored, stained and powdered, unless the same be so manufactured, used or sold, or offered for sale under its true and appropriate name, and notice that the same is mixed or impure is marked, printed or stamped upon each package, roll, parcel or vessel containing the same, so as to be and remain at all times readily visible, or unless the person purchasing the same is fully informed by the seller of the true name and ingredients (if other than such as are known by the common name thereof) of such article of food, drink or medicine at the time of making sale thereof or offering to sell the same.

Sec. 4. No person shall mix any glucose or grape sugar with syrup or sugar intended for human food, or any oleomargarine, suine, beef fat, lard, or any other foreign substance, with any butter or cheese intended for human food, or shall mix or mingle any glucose or grape sugar or oleomargarine with any article of food, without distinctly marking, stamping or labeling the article, or the package containing the same, with the true and appropriate name of such article, and the percentage in which glucose or grape sugar, oleomargarine or suine, enter into its composition; nor shall any person sell or offer for sale, or order, or permit to be sold, or offered for sale, any such [article] of food into the composition of which glucose, or grape sugar, or oleomargarine, or suine has entered, without at the same time informing the buyer of the fact, and the proportions in which such glucose or grape sugar, oleomargarine or suine, has entered into its composition.

Sec. 5. Any person convicted of violating any provision of any of the foregoing sections of this act shall for the first offense be fined not less than ten dollars nor more than fifty dollars. For the second offense they shall be fined not less than twenty-five dollars nor more than one hundred dollars, or confined in the county jail not less than one month nor more than six months, or both, at the discretion of the court; and for the third and all subsequent offenses they shall be fined not less than two hundred and not more than one thousand dollars, and imprisonment in the State prison not less than one year nor more than five years.

Sec. 6. No person shall be convicted under any of the foregoing sections of this act if they can show to the satisfaction of the court or jury that he did not know that he was violating any of the provisions of this act, and that he could not with reasonable diligence have obtained that knowledge.

Sec. 7. One-half of all fines collected under the provisions of this act shall belong and be paid to the person making the complaint, and the remainder shall belong and be paid into the school fund of the township, city or village where such conviction is had.

Sec. 8. The prosecuting attorneys of the counties of this State are charged with the inforcement of this act, and it is hereby made their [duty] to appear for the people and to attend to the prosecution of all complaints under this act in all the courts in their respective counties.

Sec. 9. All acts and parts of acts inconsistent with the provisions of this act are hereby repealed.

The National Convention.

We learn, with pleasure, that Rev. L. L. Langstroth will (his health permitting) be in attendance at the National Convention in Lexington, Oct. 5-7, 1881. He will be the guest of Mr. Wm. Williamson and family. The presence of this good man and illustrious bee-master, cannot fail to be a very attractive feature in the proceedings of the National organization. The programme, published in our issue of the 17th inst., presents a variety so so extensive and tempting, that pressing duties at home alone can prevent a large and enthusiastic attendance. Many points of general interest will be discussed, some or all of which will have a bearing on the future of bee-keeping, and no reflecting apiarist can for a moment imagine that he is not personally interested in these discussions. All should make a strenuous effort to be present, and our word for it, no Northern bee-keeper will regret having enjoyed a few very pleasant and profitable holidays with our Southern friends in their "Old Kentucky Home."

Honey Trowel.—Mr. J. M. Shuck has sent us an implement for inspection and trial, for uncapping honey. We have not had opportunity to test it yet. The following is a copy of his letter accompanying it:

> I send you a honey trowel. I have been enjoying my first experience in extracting honey, and the first thing I did was to quarrel with the uncapping tools, called honey knives. I went to a seed store and purchased, for 30 cents, a gardener's trowel, which I sharpened, and then tried again, and I was pleased. To operate, lay the comb flat down, or set it on edge, as desired; if the operator is right handed, work from right to left, if left handed, from left to right; the tool will cut like a razor, and the caps will roll up beautifully. The one I send will hold the caps of one side of a Langstroth frame without emptying. If, after trial, you find it of interest to bee-keepers, you may notice it as you think it deserves; I have none for sale.
>
> Des Moines, Iowa, Aug. 3, 1881.

☞ We invite special attention to our Market Reports this week. We give reports from several more of the chief American marts. Selling honey to the best advantage is of considerable importance now, and we have, therefore, made arrangements for weekly reports from the cities named, as well as some others not yet indicated. This will give producers an opportunity to select the best market, considering price and convenience.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Bee-Keeping in Southern California.—The extent to which bee-keeping prevails in the foot-hills of Southern California may be estimated by the following item from an exchange:

> The San Francisco *Examiner* places the number of hives worked this season in the counties of Los Angeles, San Diego and San Bernardino at nearly 200,000. There are, according to this authority, at least 600 men wholly engaged in the honey business this season, and an average crop is assured.

Wooden Foundation.—The London *Journal of Horticulture* says:

> Everyone who has any thing to do, even the slightest, with scientific bee-keeping must be convinced of the value to bees and bee-masters of comb foundation. Personally I am disposed to endorse Messrs. Abbott's view that now comb foundation is so good, so strong and perfect, and at the same time so moderate in price, it is doubtful whether true economy is not best shown by not using combs a second time. There is something about the foundation that the bees appear to like, and they exclaim like the guest at the feast, whose silence obtained for him the character of being exceedingly clever till the apple dumplings were too much for his gravity, and he burst out with, "Them be the jockeys for me!" It appears to me that the bees express similar sentiments. I placed a frame with some comb in one hive, and in another with an inch of foundation in two pieces (part yellow, part white). In 24 hours I removed both; the comb appeared scarcely touched by the bees, but the foundation was built on "all along the line;" and, what very much surprised me the bees had built up yellow cells on yellow foundation and white on the white! How could they tell the difference and manage this? It seems to me that the midrib is the difficult point of manufacture to our industrious little workers, but when this is provided they lay on the cells at an express rate.
>
> I have seen wooden foundation vaunted as preventing sagging, and being stronger &c. Accordingly I invested in some and tried 6 frames. It appeared a first rate article, and when fitted to the frames the latter were certainly as strong as possible. I expected grand success. Great, however, was my dismay on the first time of opening (they were in different hives) to find the first pair that happened to be next each other glued together, the comb being built irregularly ahd attached to both wood foundations. The bars could not be removed without a rupture and the falling of a large piece of comb. Then I found much uncovered—in fact, if the wax had been at all interfered with, here the bees had left it bare, but then to make amends, and determined, as is their wont, to economize space, they had built out the next comb to fill up the space—a great evil, as the comb becomes so heavy that in hot weather it breaks off, and sad havoc and loss ensue. Still more surprising, I found that though the wax was worker cells, on the wooden foundation, they disregarded it and built drone comb over, and on the irregular built cells they set to and built out some pieces of perfect two-sided comb with central portion and cells, both sides sealed completely on one side of the wood; in fact it seems to me that they were tempted by it to all sorts of vagaries. Of the 12 faces on these 6 sheets, I have only seen one at all even and respectable, and this was not built over all the face; in fact, the bees evidently do not like some portions of it. I cannot recommend it, and, with the present beautiful wax foundation, for several purposes it appears unnecessary. Lastly, it seems to me to yield its contents to the extractor with difficulty.

A large Canadian Apiary.—It will be remembered that Dr. Nugent purchased several hundred colonies of bees of Mr. Heddon last season, and many would like to know how he is succeeding with his new apiary in Canada. From the Strathroy *Age* we copy the following particulars:

> We are pleased to learn that our friend, Dr. Nugent, is reaping the reward his energy and enterprise so well entitles him to do. The Dr. invested upwards of a thousand dollars in bees at one purchase last fall, and we doubt not that his investment will prove a profitable one. We know him to be an enthusiastic and intelligent apiarist, and we expect soon to see his apiary take its place among the largest and best managed establishments of this kind in this continent.
>
> Some days ago we greatly enjoyed a visit to "Linden Apiary," where we found the proprietor, Dr. Nugent, actively engaged gathering in the honey harvest. The Dr. and his manager, Mr. Conklin, showed us over the entire grounds, and demonstrated some of the minutiæ of bee-keeping. There are near 400 colonies now in the apiary, most of them are Cyprian, Italian and Holy Land bees, some few German or common black ones, which are rapidly being replaced by the three first. This is done by destroying all the queens belonging to such stocks and giving them the desired pure ones, thus in a few weeks rendering the entire colonies so acted upon pure. Some few blacks will still be kept, such as have proved themselves extraordinary good workers.
>
> We have had a sample of the section honey sent to our office, and for virgin whiteness, as well as for neatness of style and flavor, it cannot be surpassed, if even equalled.
>
> The total yield this year is about 15,000 lbs., though it is expected when setting up the bees for winter 1,000 or 2,000 pounds more will be received.
>
> The doctor intends establishing another yard next spring within a short distance of the town, and at present thinks of locating it above the town on the banks of the Sydenham.

Honey Dew.—An exchange contains the following story concerning the appearance of honey dew in Georgia:

> My daughter was engaged early Sunday morning in sweeping off the front porch, when her attention was attracted by the plaintive cries of young chickens and the distressed clucking of a hen. The sound came from a pile of leaves under some poplar trees in the yard, and hurrying to the spot she found the little chicks all stuck up with leaves, rolling about struggling to free themselves, and two of the little sufferers were stuck together. She picked these two up, and coming to the house called me. On examination we found them covered with a sticky substance, which seemed to have come off the leaves. I went into the yard, and found it on all the leaves, and, tasting, was surprised to find it honey. Looking around I could see it glistening in the sunshine like diamonds on every leaflet, and on the porch for 2 or 3 feet were splotches of it. Several neighbors dropped in during the day whom I told of the honey shower, supposing it had been general, but they were incredulous till shown evidences of it. In the evening of the same day I noticed a mist between me and the sun, and a closer examination disclosed the fact that we were having a repetition of the phenomenon, which was witnessed by many people. While it did not run off the house, either morning or evening, it covered the leaves of the trees and shrubs, and was, without a doubt, honey dew, and that, too, from a cloudless sky.
>
> Talbot, Ga. JOHN KEE.

CORRESPONDENCE

For the American Bee Journal.

My Prize Poem on the Honey Bee.

WM. F. CLARKE.

In the brief sketch of my apicultural career which appears in the Bee Journal of July 13, accompanying the portrait, no mention is made of what I have ever regarded as one of the highest honors gained by me as a bee-keeper. Ten years ago this summer I succeeded in winning the $40 prize, offered by H. A. King & Co., of the *Bee-Keepers' Magazine*, New York, for the best poem on "The Bee." I was very proud of the achievement, and am yet. Up to that period of my life I had not considered myself, nor been considered by others, a *poet*. I had, like most people who handle the pen much, now and then jingled a few rhymes together—that was all. When I saw the advertisement offering the prize, I said to myself, "Now, this thing won't go altogether by poetic merit. There must be knowledge of apiculture displayed, as well as poetic genius. I think I know the bee pretty thoroughly, and I am going to try for this prize." On announcing this determination to my better-half, she threw several pails of cold water on it. "The Yankees will never let that prize go to a Canuck; "You're not a poet, you know;" "Time and trouble thrown away," etc. The true use of advice is to make us more firm in our own way, so I went ahead with my poem, resolved to do my very best.

When the letter came from New York, announcing my success over 40 odd competitors, I felt greatly uplifted, but tried, of course, to seem very meek. I handed the letter to my wife, and retired quietly from the room, so as not to be betrayed into any self-glorifying behavior. That night, without any mention of the New York letter, the subject of the curtain lecture was the duty of not being exalted above measure in view of any honor or distinction that might befall us. Next morning, at the breakfast table (all our children were at home then—now 6 out of 8 have gone from us) the lady of the house made a little speech on this wise: "Children, it is now definitely settled that your papa is a poet. This explains a great many things I never could understand, but I shall henceforth ascribe to the *eccentricities of genius*." That plea has come in very opportunely many times since; in fact, between "the license of poetry" and the "eccentricities of genius," I get the liberty of doing pretty much as I like.

The poem in question has never appeared in the Bee Journal, I believe. Several of my friends have inquired for copies of it of late, and as it may be said to be "out of print," it might gratify others, as well as myself, to see it in our favorite old apicultural Journal.

PRIZE POEM ON "THE BEE."

Where in the realm of nature do we see
A worthier study than the honey bee?
What curious instinct dictates every art
Whereby this little creature acts its part!
How do the marvels of the hive combine
All other insect wonders to outshine!

A swift-winged forager, the bee sets forth,
Scouting from east to west, from south to north,
Intent on gathering, with industrious haste,
Sweetness that else upon the earth would waste;
And, whereso'er the wanderer may roam,
Laden she flies unerring to her home.

A skilful manufacturer, she makes,
By some internal process, pearly wax,
A substance plastic, soft and delicate,
Beyond the power of man to imitate—
Suited to house the growing insect brood,
Or to encase the store of luscious food.

The bee is mathematical, and well
Illustrates Euclid in her form of cell;
Sir Isaac Newton, Simpson, or Legendre,
To none of these great masters need we send her:
For she has found what they could never see,
A "royal highway" to geometry.

The bee's a warrior bold, and never saw
Foe who could make her from the field withdraw;
In single combat, or in army fight,
No bee has ever shown the feather white—
"Ready, aye ready," any time to rally,
And at a moment's notice forth to sally,

The bee's a model citizen—ease, food,
Life, all is yielded to the public good;
No individual interests weigh a grain
Where there are public interests to maintain;
As in old Rome, when all were for the State,
Rich helped the poor, and poor men loved the great.

The bee, in ages past, was little known
In characters of worker, queen and drone;
Absurdest theories and superstitions
Usurped the place of rational positions,
And, while a dozen bees remained alive,
No man durst search the mysteries of the hive.

Each autumn, when the tempting store of honey
Excited appetite or love of money,
The faithful workers forfeited their lives,
That man might get the contents of the hive;
A tragic finish to the busy season,
For which necess ty was made the reason.

Now, thanks to science and its hand-maid, art,
The apiculturist acts a wiser part;
The comb is built upon the movable frame,
With smoke or sweet the fiery bees we tame,
Control the busy inmates of the hive,
Obtain their stores, yet save them all alive.

The brisk Italian now assumes the place
Of the familiar, black, old-fashioned race—
Nimbler, more energetic, more prolific,
And, happily, in temper more pacific;
A more untiring and adventurous rover,
And able to suck honey from red clover.[*]

Of old a super-glass, or honey-box,
Was placed above each of the thriftier stocks,
In hope they might be tempted there to store
A surplusage of twenty pounds or more
Of first-class honey; but a lazy fit
Would oftentimes prevent their doing it.

Now in these palmy days of honey-slinging,
The bees are kept without cessation bringing
New stores of sweet, which quickly we transfer
Into the mel-extracting cylinder,
And thence by use of force centrifugal,
Get honey by the pail or barrel full.

The march of progress is not over yet,
Nor will be till our apiarists get
A plan for making artificial comb[†],
And thus provide the bee a finished home,
To which all hands shall busily fetch honey,
And smiling bee-men turn it into money.

Next we will find a bee like the Egyptian
For storing honey, but of a description
Quite opposite in temper, and without
That ugly inclination to dart out
The venomed sting, on slightest provocation,—
Nature's worst form or counter-irritation.

With all facilities for honey getting
A race of bees that will admit of petting;
Each household of an apiary possessed,
Bee-keeping followed with unflagging zest,
Honey and milk shall flow all countries through,
And "home, sweet home," obtain a meaning new.

---

[*] License of poetry claimed here. The writer has never been able to satisfy himself that the Italian bee gathers from red clover to any extent, but it is often asserted as a fact, and clover was wanted here as a rhyme to "rover."

[†] Comb foundation has come into use since the poem was written.

* * *

Western Stock Journal.

Seasonable Hints—Summer.

O. CLUTE.

The first part of the month of August is, in many places, a season of enforced idleness among bees. The summer flowers are past, and the fall flowers are not in bloom, hence there is little honey to be gathered. Wherever corn is largely cultivated the little fellows will carry a great abundance of pollen into the hives to help the brood-rearing of late fall and early spring when no pollen is to be had.

As soon as the surplus honey-boxes, or sections, or frames, are full and sealed, they should be removed from the hives. Indeed it is usually best to remove the surplus receptacles as honey-gathering ceases, even if they are not full. Bees are apt to carry some of it below, and they soil it by traveling over it.

At this time great care must be exercised, when working among bees, not to incite them to robbing. If honey is left exposed they will at once begin upon it, and soon the whole apiary will be in a hign state of excitement. As soon as the supply which has roused them is exhausted they will begin on the weak colonies, master them, and clean them out completely. A little carelessness in exposing honey will thus often be the cause of losing several colonies.

If bees once get to robbing they can be dispersed for the moment by sprinkling the hives that are being robbed with water from a common watering-pot. The bees seem to think it is raining, and so the robbers rush off home. A good means of stopping robbing is to pull several handfulls of weeds and grass and leaves and throw them loosely over the entrance of the hive that is being robbed. Bees belonging to the hive will make their way out and in through this obstruction. But robbers seem to be chary about going through it. Probably the best means of stopping robbing is to spread a sheet over the hive that is being robbed, letting it completely cover the hive, and come down to the ground all around. This, of course, pre-supposes that the hives are set near the ground, as all hives should be. Four or five inches above the surface is plenty.

As soon as the honey ceases coming into the hive the queen relaxes her efforts in laying. Instead of depositing 2,000 or 3,000 eggs a day, she will, perhaps, lay only a few hundred. This, of course, makes the growing brood so much less, and hence there will be fewer bees to gather the fall harvest than there would be if the queens would lay every day all the eggs possible for them to lay. In order to promote laying some bee-keepers are accustomed to feed each hive about a quarter of a pound of thin sugar syrup every day from the time honey-gathering ceases until it begins again. This feeding needs to be done with great caution, in order not to incite robbing.

As soon as the fall flowers begin to yield honey, see to it that the surplus honey receptacles are all in place. Prevent swarming if possible. The parent hive is weakened, and the new one does not gather enough to last it over winter.

Iowa City, Iowa.

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For the American Bee Journal.

Italian Bees in Australia.

S. MCDONNELL.

As it may be interesting to the readers of the Bee Journal to learn in how far my experiment to introduce Italian bees into this Colony has progressed, I send you a few notes on the subject.

The mail steamer "City of Sydney" left San Francisco on June 4, and arrived in Sydney harbor on the evening of the 1st inst. The mails by her were delivered here on the morning of the 2d inst., and by a letter from Mr. A. H. Newman I learned that, according to my instructions, two colonies of Italian bees had been shipped by the steamer. I next visited the ship's agents, who handed to me a letter from Mr. Williams, of Messrs. Williams, Dimond & Co., San Francisco. Mr. Williams, although a stranger to me, was kind enough to attend to the shipping of the bees at San Francisco, on their arrival from Chicago, and I am much indebted to him. The shipping documents contained in Mr. William's letter enabled me to get immediate possession of the 2 hives, and by means of a cab (traveling gently) and the suburban railway, by noon the bees were on their stands on my ground at "Homebush," about 8 miles from Sydney. The portico of each hive (Langstroth) contained about a quart of dead bees, which I had removed and preserved, in order to see if the queens were among the dead. I have looked them over (the dead bees) without finding her. The day was bright and warm and the bees were soon flying briskly. I now had an opportunity, for the first time, of seeing Italian bees, and I was much pleased to see that the difference between them and the black bees is sufficient to be noticed by such a fresh acquaintance to their appearance as myself. We have, so far, had a very mild winter, the days having been warm and clear and the nights cool, the thermometer on one or two occasions showing the mercury at freezing point.

You will observe that the bees left Chicago at the end of May, or about the middle of your spring, and arrived here on the 1st of July, or at the beginning of our winter. They, therefore, after having passed through an unusually severe winter with you, have been subjected to the long journey from Chicago to San Francisco, by rail, and a 4 weeks' sea voyage to Sydney. It is true that our winters seldom are so inclement as to prevent bees from flying all the time, but, nevertheless, I cannot but think that the best time for bees to arrive at Sydney from San Francisco would be October, in order to avoid the double winter. I was much exercised to decide whether or no my new friends, the Italians, paid our climate the compliment of taking the mild winter to which they landed, as the summer which should, in ordinary course according to their calendar, have been allotted to them. I am afraid, though, that if they entertained such a notion, their minds have been disabused by the absence of flowers.

Having landed the bees safely, my next trouble was their proper care and maintenance, and I turned to the hand-books—including Langstroth, Cook, King, Quinby and Root, which I have on my shelves, for information. For the first time in applying to those books for assistance in a difficulty, and you will understand in how far I am indebted to them when you learn that I have none other than the advice to be gained from books and periodicals to guide me—no practical friend to give me a wrinkle at the proper moment, or show me how to avoid doing things as they ought not to be done—I sought without finding.

The points on which I more particularly sought for information were, 1st, The general treatment of bees after a 4 weeks' sea voyage; 2d, Their treatment in having to face a second winter, without the intermediate seasons. If you think it worth while to give a few hints on these points, they would probably be perused by others, as well as myself, with interest. Although they would come too late to be of service to me in my present emergency, they would be in good time should I try a second experiment. Under the circumstances I hold that a little food would not come amiss, and that an inspection of the hives, during fine weather, would do no harm, and would relieve my curiosity as to the bees rearing brood, as they would in the ordinary course of summer following winter and spring. Not having a tool handy to remove the frames without jarring, from the position in which they were fixed for traveling, I deferred the operation, and have since been prevented from inspecting on account of wet weather, during which I deemed it inadvisable to open the hives. I have, however, given them food in the shape of honey and syrup, to guard against their food combs being empty, although I had misgivings that by so doing I might be encouraging breeding at an unreasonable time of year.

You will thus see that the experiment of introducing Italian bees is fraught with difficulties, the more especially when undertaken by one whose only experience lies in having put the most excellent rules contained in your American hand-books and periodicals into practice. I feel like one wandering in the dark in unknown parts, to whom a little practical advice exactly to the point would be as welcome as the light of day. Should the experiment not succeed, I should not determine that it cannot be successfully performed, but should attribute the failure to my want of experience, and should try it again.

Your Journal continues to be read with great interest. I must compliment your artist on the excellent reproduction of your photograph, which appeared as a wood cut in your Journal. The possession of the photograph kindly sent by Mr. A. H. Newman enables me to form an opinion of the reproduction. It is an additional proof that the matter in the Journal is true to nature, and that its readers may rely on its counsel.

Sydney, Australia, July 12, 1881.

[When you placed the hives upon the stands you should have taken out the frames and examined them critically—1st, for the queen; 2d, to mend broken comb; 3d, to regulate feeding; 4th, to see the amount and condition of brood. If it is possible for frequent flights, we would advise stimulating for immediate breeding, as many of the bees are old, and the colony will soon dwindle if new bees are not reared to take the place of the old ones.—Ed.]

For the American Bee Journal.

Value of the Cyprian Bees.

WM. M. ROGERS, D.D.S.

The evidence of the BEE JOURNAL against the character of the Cyprian bee appears to be cumulative, and I think the inference a pretty fair one that the editor's judgment begins to yield to the pressure. It would be presumption in me to attempt to instruct you, but pray permit me, in your columns, to advise those who are in the possession of pure Cyprians to be careful how they let a good thing slip their fingers. I have now had Cyprians from the Jones-Benton importation for about one year. I am sure that I do not, at this writing, find any cause for regret in the fact that I sacrificed a nice strain of Italians for them.

Hybrids, except in rare instances, are ranked as the most vicious and irritable bees, and we ought not, of course, to expect that Cyprians, when crossed, should be an exception. I think extreme crossness or "ferocity" (the word speaks the nervousness of the writer of it) in a colony of Cyprians, imported though it be, will, in itself, constitute a weighty argument for the impure mating of the queen.

My experience is to the effect that Cyprian queens mated with Italian drones give a progeny, in frequent cases, that is unbalanced from the character of either parent. I bred colonies in 1880 from Cyprian queens mated to Italian drones that carried, as far as I could see, all the characteristics assigned by Mr. Benton to the pure Cyprian, excepting, only, the case of their queen progeny. From the same stock I bred other colonies just as nice as the above, that I would pit against the continent as fighters, and yet I have not known a single instance in which even the worst of these have volunteered an attack.

I cannot but regard it as a matter of regret that Mr. Jones should leave Syrian bees with Mr. Benton on the Island of Cyprus. This, I think, is a fairly presumable fact. It is to be regretted in a less degree, only in the event that his sales from this source have been less, that Mr. Fiorini should have established his Cyprian apiary in the presence of Italians. We owe a debt to the past as well as to the future. The censured character that falls to the inheritance of the Cyprian, under thousands of years of isolation and trial, ought not, if valuable, to be thoughtlessly or recklessly lost; it seems a moral wrong to do so. From my observation I think the Cyprian has everything to lose and nothing to gain from crossing, whether with Syrians or Italians.

I shall not indorse the Cyprian for the full measure of gentleness that is exhibited by the Italian, but I do affirm that Mr. Benton's statements on this point are, to the letter, true, and I boldly assert that his affirmation is worth more than the denial of a thousand loose experimenters added to that of another thousand of careless observers. I shall advise no one to give up Italians for Cyprians, but to those who make the experiment or who have already invested, I say, if you are first sure of the purity of your stock and understand its character, you can write as your second proposition—success. Let the uninitiated know that the tests of purity, as applied to Italians, are not a test for Cyprians, for a Cyprian queen mated with an Italian drone will produce a race so closely resembling pure Cyprians that it will take more than ordinary powers of discrimination to distinguish the difference, and yet in character the bees are essentially different. Hence I infer that many breeders who sell untested Cyprians, having not the ghost of a chance for pure mating, will vend many bees that will stand the test of the 3 bands. What is the test of a pure Cyprian? I have not found it in the worker progeny, but I will not deny that a more acute observer might do so. I am almost sure that for the most of us it must be sought in the worker and the queen progeny considered together in every case. As far as I have observed, the queen progeny of a mismated mother will manifest the mating. If this be so it will never be a popular fact among breeders until buyers are willing to pay for what they get. Many of these untested Cyprians of 1881 and their mongrel progeny will appear at the bar as blatant witnesses and vociferous accusers of the pure Cyprian. Could any race of bees sustain character under the conditions likely to be engendered against this "noble bee?"

Shelbyville, Ky., Aug. 15, 1881.

[We want all the light possible regarding the Cyprian and Syrian bees. If they, or either of them, possess superior traits, why does not Dr. Rogers enumerate them? It is an admitted fact, that the progeny of an Italian queen mated with a black drone, are worse in disposition than the blacks; *per contra*, it is claimed that the progeny of a black queen mated with an Italian drone, are more amiable and vigorous. This will probably account for the frequent assertions that hybrids are the best workers. Again, is it not possible to combine the better traits of the Italians, Cyprians and Syrians, or a majority of them—if any are superior?—ED.]

For the American Bee Journal.

Exhibiting Bees at Fairs.

J. M. BROOKS.

Having read the article on "Management of Bees at Fairs," I will say that, as I have had a little experience in that line, I am of the opinion that our efforts to instruct the public in this way will prove fruitless. Several years ago I obtained permission to exhibit some bees at our State Fair; in due time I arrived at the grounds and opened up my bees. The public were greatly interested and surprised to see how easily the combs could be handled, the queens found and shown them, and all without the use of smoke, veil, or gloves. Although the crowd continually surrounded the bees, not one received a sting. Everything seemed to be working nicely, when the superintendent came up; taking me to one side, he said that I would have to close up my hives, that they were not stinging anyone, but were giving the "candy stands" trouble. I explained the matter to him, that, as there was an apiary of blacks kept in the neighborhood it was very plain to be seen that as my bees were Italians he would find that about one of my bees to 50 of the blacks were causing the trouble. He admitted the fact, but said that the candy men would not be satisfied unless my bees were shut up. I confined them to the hives that evening after dark.

The next day I visited all the stands, and such a sight—pound after pound of stick candy lay on their counters, exposed not only to tempt the poor innocent bees to a feast, but to all the dirty flies, also. Bees were everywhere, completely driving away proprietor and customers, and taking everything before them. Of course, they never volunteered to sting anyone unless pinched, nevertheless their presence filled everybody with fear. Thousands perished at the "sweet cider" presses, and made things lively for the "hot-candy" men, who boil and serve their candy on the grounds. Of course all were free in laying the whole trouble to the "confounded bee man," in bringing bees on the grounds, when the truth was I had kept them closed up, except the one day.

Stepping up to a stand kept by a lady (where the bees were just swarming) I remarked that the bees were very troublesome, when she replied: "Yes; if it hadn't a been for that plagued bee man we shouldn't a had all this bother. The managers made him take 'em off the grounds, and here he's went and left all these a flying around here; confound 'em, I wish they were all dead!"

I could not help smiling at the view she had of the matter, so explained that she was laboring under a mistake, that I was the bee man and had closed up my bees the evening before, and that those flying belonged to hives kept outside the grounds.

I had been to some trouble and expense in getting my bees on exhibition, and, although not to blame for the hundredth part of the trouble, yet I had to be ruled out in order to satisfy the confectioners. I attached no blame to the superintendent; he acted and reasoned in a gentlemanly manner, saying (as I fully understood) that they were ignorant of the cause of the trouble, and as long as they could see my hives open they would not be convinced but what every one of the bees belonged to my hives.

I would not discourage anyone from the undertaking, but will say unless there has been an understanding "all around" beforehand, that sweets and everything to tempt the bees must be kept under cover, there will be trouble.

As to persons getting stung, there need be little fear if the exhibitor knows his business; if he does not he had better leave the bees at home.

Columbus, Ind., Aug. 10, 1881.

[Mr. Brooks would now probably meet with more encouragement for his beautiful bees; and certainly nothing could be more interesting than a practical lecture from him in connection with his exhibition. Last fall, at the Wisconsin State Fair, a gentleman of Madison exhibited his bees, and explained the methods of manipulating them. This season, with a good yield, his extracted honey has been sold as fast as obtained at comb honey prices. This is what is wanted, and bees are of much more importance to the country than hot glucose candy.—ED.]

For the American Bee Journal.

Preparing Bees for Winter.

L. J. DIEHL.

Now is the time to prepare colonies for safe wintering. First, see that each colony has a prolific queen, and if it has not already enough honey, be sure that the colony has enough bees to fill up for winter as soon as the fall bloom comes. Each comb should have at least one hole through it, for a winter passage, for the bees to pass from one comb to another, without passing around the frame. I have examined many a colony of bees that have been wintered in a careless way, that were not provided with winter passages, and have starved with plenty of honey on the other side of the comb. I feel certain that if they had had a passage through the comb they would have survived the winter. If any colonies fail to gather enough honey for winter, in the fall, unite all such together, for you can make one good colony out of 2 or 3 poor ones, and I often find colonies thus treated the very best colonies in the spring.

I early prepare my colonies for winter, on the summer stands. This is the critical point in wintering bees, and it must be done in good season so that the bees can properly finish up the work before the frost cuts off the bloom. I have read the published reports very carefully, and can account in no other way for the bad results of last winter but by the neglect to have the bees prepared in good time. They should have at least 2 or 3 weeks pleasant weather before winter sets in, to seal up and clean the hive; then, if properly packed inside the hive and kept dry, they will winter in good condition.

This is my plan for preparing bees for winter, and it works to a charm. After the fall season is over for surplus, I take a blanket made the size of the hive on top, and long enough to reach down to the bottom of the frames, smoke the colony, take off the surplus arrangements, contract the colony to the proper size, put in division-boards, fill the empty space with dry chaff, or any dry absorbent that may be handy, such as rags, fine hay, or straw, place the blanket on the top of the frames, then drop the end of the blanket down back of the frames, tuck the edges in nicely, close up the hive and fill the top or upper story with an absorbent, cover the hive to keep perfectly dry. I bore a ½-inch hole in the front of hive, about ⅔ of the way up from the entrance, front the hives to the south, and all is ready.

I have wintered my bees with success for at least 15 years, and I know whereof I speak. People are depending too much in chaff packing outside of the hive; they must have at least one end of the frames to run to the hive without packing, and that end should be the front, and the hive must front the south. All the bees that were in my town are dead, except mine, which wintered safely. I have 135 colonies, and my loss in winter was 6 colonies, 2 of which became queenless, 2 were destroyed by mice, one starved and one died with dysentery. This has been a very good season for honey. My bees have had no rest since the fruit bloom; there has been a constant flow of honey.

Butler, Ind., July 24, 1881.

For the American Bee Journal.

The Origin of Drones.

C. J. ROBINSON.

In a paper read before the Entomological Society, published on the first page of the BEE JOURNAL, of July 27, Prof. A. J. Cook wrote: "Though doubt is sometimes expressed as to the origin of drones by parthenogenesis, there is no such doubt among intelligent apiarists." If *all* intelligent apiarists agree on any certain point, why mention a doubt concerning the admitted fact, unless the writer thereof assumes to dispose of or settle the question of who rank as intelligent, and those who do not? Said writer was well aware that I, for one, "express doubt," yea, controvert the doctrine that teaches parthenogenesis in honey bees.

Mr. Cook, providing he is reliable authority on the subject he discussed, was aware that at least two intelligent apiarists, namely, the lamented Major Munn, a learned physiologist and enthusiastic apiarist, wrote thus: "Parthenogenesis, so far as the honey bee is concerned, would be difficult to prove with all the voluntary muscles in the bees' abdomen, or any pressure of the cells that might be brought to bear on the oviperous queen bee." He further says: "The proof is wanting that the eggs may not have already been fecundated in the queens' ovaries."

I claim, as set forth in a former article, that queens are impregnated with royal jelly (drone's semen) while in the larval state. Furthermore, I will here allude to one other enthusiastic and experienced apiarist who, though read out by Prof. Cook as not being counted "intelligent," advocated the same doctrine as to the "origin of drones" that I promulgated in the BEE JOURNAL of March 23. The individual referred to is Mr. Elihu Kirby, a naturalist of some sense, at least, if not intelligent according to the before mentioned standard. Prof. E. Kirby was a valued correspondent of the Albany *Country Gentleman*, and after the AMERICAN BEE JOURNAL was started, he contributed to both periodicals until his health failed. The reader can compare the articles of the said Professors and determine which, in a scientific point of view, "expresses" the highest degree of intelligence.

Inasmuch as I have presented testimony to corroborate my theory of the origin of drones, I challenge Prof. Cook to produce one intelligent apiarist, not barring himself, who can explain and prove beyond a doubt, that drones originate by parthenogenesis. No intelligent scientist will confess that he, in matters pertaining to any science, pins his faith upon some one, or some few observations of his own, and say that others are non-intelligent who are not of the same faith.

The doctrine of parthenogenesis is of modern invention, being held forth as a hypothesis to account for the reproduction of certain insects, but there is no record of evidence showing that parthenogenesis exists, in fact, in any living creature, much less that it explains the phenomenon of virgin queens reproducing drones. Certain German scientists, namely, Von Siebold, Leuckart, and Dr. Donhoff are the originators of the term parthenogenesis, and defined its meaning. Those men fancied that drones originated as explained by their new theory, and the lamented Baron of Berlepsch, being in the dark regarding the phenomenon, adopted the hypothesis as a fact.

Either parthenogenesis is a false doctrine or the Creator had no wise purpose in making a distinction of sex. True, if we have faith in some stories, some of us might believe that parthenogenesis existed even in the human race, but none would be willing to vouch for the truth of those stories, even to uphold the doctrine by them advocated. Of course, I have no reference to the case of Joseph's bethrothed, nor to the 15 other virgins who, according to ancient history, are reputed to have reproduced independent of the male sex!

Parthenogenesis and Mormonism may yet transform the relation of human males to the reproduction of our race, like the relation of the drone to the bee species. I hope that some Professor will deign to write an essay on this subject.

Richford, N. Y., Aug. 15, 1881.

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For the American Bee Journal.

Bacteria, a Cause of Loss in Winter.

JAMES HEDDON.

In the BEE JOURNAL of June 15, Mr. J. O. Sherman wants to know why some scientific "beeist" does not give us the proof, if it is bacteria that kills our bees. First, the theory or supposition, and then the demonstration. How long did bacteria produce itch, diphtheria, etc., before the scientist guessed (from symptoms) the true cause, and then how long was it till he demonstrated the truth of the guess? Imagination is the parent of nearly all practical inventions and discoveries. I wish to say here, that thin honey is not the main great cause of dysentery, for often have I known colonies to die early, when apparently none but the best of stores were theirs. Again, I had my large apiary of 375 colonies nearly all winter safely, with considerable cider honey in each hive. We have many credible reports where bees all died, with none but sealed, thick honey; I have had colonies die with dysentery in its worst form, ere winter had fairly began, where their honey was, apparently, first class.

Mr. Sherman says, "nearly all admit" that bees can endure long confinement if the honey is thick and in good condition. In nearly every repository, or out-of-doors, as soon as a colony is dead, dampness accumulates in the hive, an effect—not a cause—of the death of the bees. If the causes Mr. Sherman ascribes are the true ones, why is there such a difference in the success of apiaries only a few miles apart? Why cannot you go about in the fall and select the hives where the bees are going to die? I thought that the winter problem was still unsettled, not "admitted." This thin-honey theory came up, was advocated, and let drop, some years ago, as the BEE JOURNAL shows. We believed that dysentery had one cause; we knew that it raged in its worst form where no thin or sour honey was present. Of course we dropped this seeming cause.

Mr. Sherman further says, "assertions do not satisfy." Where does he find any assertions of mine as to what causes dysentery? I have, from the first, called the bacteria theory only a hypothesis, and said it was the only theory that would admit of all the effect we had experienced and heard reported. We had all heard of thin honey and fall honey as causes, and our experiences and observations had convinced us to the contrary. We knew bees had wintered in damp repositories, where "the combs were all moldy" (I quote Mr. Balch, of Kalamazoo), and died in dry ones, where all was dry and an even temperature existed; that they had come through in fine condition out-of-doors, during damp winters, where the combs molded badly, and had all died in some apiaries in seasons just the opposite; that some lived while others died, only a few miles apart, where the winter was the same, and honey in the same condition as far as thinness was concerned.

Dowagiac, Mich.

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For the American Bee Journal.

Introducing Queens with Safety.

T. E. TURNER.

I write on introducing queens in 2 hours' time, for the benefit of those who purchase queens and are doubtful of successful introduction. When an apiarist has purchased a fine queen, at a cost of from $2 to $20, it is a matter of some interest to him to know how to introduce her to a colony with safety. Different writers have given their methods, and in works on the apiary we find several described; the one I have adopted as the safest and quickest is an old one with variations.

When your queen has arrived, which should be in warm weather if at all possible, take a frame of brood just hatching from each of a number of colonies, as you may choose to introduce your queen to a large or small colony, and place them in a new hive on a new stand. Get combs of brood and bees from colonies that have no queens, or that have virgin queens where there are no eggs, if possible.

Then let the bees in the new queenless colony stand 2 hours, with the entrance open, in the middle of the day when bees are working busily. When the old bees will have gone back to the colony from which they were taken, the cage or shipping box containing the queen may be opened and placed inside the hive prepared for her, with the edge of the box open against one of the combs, and she will leave the box or cage at her leisure, and go on the combs among the young bees unmolested.

If it is desired to make the introduction of your queen doubly sure, shake or brush off all the bees from each comb into or in front of the hive from which taken, and place the combs of brood alone in the new hive. Let them stand for 2 hours, when there will be quite a cluster of young bees hatched out, among which your valuable queen may be allowed to crawl unharmed.

This is the safest and quickest method that I have ever tried. The plan of caging a queen for 48 hours between combs or on a comb I have found to be unsafe and tedious. On one occasion I caged a valuable queen on a comb in a hive containing old bees for 48 hours, and released her to have her balled up and only saved her from being stung to death by a violent smoking and driving of the bees backwards and forwards through the hive. The 2 hour method may not be a success in the hands of some, in every case, but so far I have not failed with it in one instance, and I have introduced a number of queens in this way. I have had some failures in all other methods, but have never failed by this plan, and, all things considered, this 2 hour method appears to be the only positively safe way of introducing queens. It is only 2 hours and the time spent in preparing the hive, behind A. I. Root's plan of letting queens run right into a queenless colony, and certainly it is 99 times the safest.

Sussex, Wis., Aug. 5, 1881.

CONVENTION NOTES

Convention in Nebraska.

A meeting of the Nebraska State Bee Keepers' Association will be held in Omaha, Friday night, Sept. 16, 1881, to consider wintering reports and the best method of wintering, and such other business as may demand their attention. T. S. VANDORN, *Pres.*

GEO. M. HAWLEY, *Sec.*

I append a copy of the premium list of our State Fair. A cordial invitation is extended to all to participate in the exhibit.

Best comb honey, not less than 20 pounds, crated, and in single-comb sections weighing not less than 2 pounds each, 1st premium, $10; 2d premium, $5.

Best gallon extracted honey, limited to competitors producing their own honey in Nebraska during the year 1881, 1st premium, $5; 2d, $3.

Best colony of Italian, Cyprian, or Syrian bees, or cross of either, 1st premium, $10; 2d, $5.

The test of colonies to be net gain in stores during the two weeks preceding the day of examination. Each hive to be weighed, recorded and sealed at the commencement and again at the end of the trial. No colony admitted not possessing the ordinary amiability of pure Italians.

Best exhibit of brood and surplus comb foundation fully or partly drawn out, $5.

Best exhibit of apiarian implements and supplies, 1st premium, $10; 2d, $5.

Best display of honey in marketable shape, $5. G. M. HAWLEY.

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Read before the S. W. Wis. Convention.

Essays, and their Advantages.

EDWIN FRANCE.

I find it difficult to get members of bee-keepers' societies to write essays for conventions. There is always some excuse—no time, not posted, no experience, some one else can do better, etc.

Let me ask, are bee-keepers' associations profitable, or likely to be? I think we can all profit by them if we do our part. We get together to talk over matters belonging to the bee business, and, as our time together is short, it is important that we come right to the point on everything, and we want to take up as many of the most important points as our time will admit. Now, I think it is important that every member have some point assigned to him, and let him post up and gather together all the evidence he can bearing on that point, and write it down to be read at the next meeting. Should it happen that he cannot come, he can send it to be read.

There is no member that will be so much benefitted by it as the one that writes the essay, because, if I write on any subject I have to think and post myself on it, and call to mind many things that I would not otherwise have thought of; I shall examine the bee-papers and think over my past experience in that direction. In that way I shall, perhaps, find many things to remind me of something that I ought to do, that will be a benefit to me. If we ever make the business a success we must think—we must study all the wants and habits of the bee. There are many things to be thought of, and I know of no way that will induce us to think on any subject as much as to write on it, and one is more likely to remember an idea if it is brought out by hard study, especially if written down. If we make bee-keepers' associations a success we must work, think, talk and write. If there is anything we do not understand, that is the very point we should write upon, for, if we do ourselves justice, we will post up on that point. In fact, we want to post up on every point in the business.

Let no one try to excuse himself on the ground of inability. Some say: "I can't write anything; there are others that can do better, and if I do write, I am just as likely to say something wrong as right." If that is the case, by all means say it; say it before the meeting, for if you are wrong very likely some of the members can correct you, and put you on the right track. The sooner you are corrected, the better for you.

I want all to criticize me just as closely as they can. If I say something you do not understand, ask for an explanation, or, if you cannot agree with me, say so, and let us talk the matter over. Perhaps I am wrong; if so, I want to be corrected. We can learn a great deal from one another, in fact, we can learn a great deal from mistakes made in bee-keeping, as well as any other matter. I think we should establish a question box; that is, if anyone has questions to answer or be answered, let them write each question on a slip of paper and hand it to the Secretary to be read and answered by any member. If it will take too long to explain now, have it assigned to some one to answer at our next meeting.

As we can gain knowledge by observation, we should closely watch everything belonging to the bee business. If we lose a colony of bees try and find out why it was lost, make a record of it, and bring the report to the meeting and let us all know about it, so that we can be prepared to avoid a similar loss.

I often find, while working with bees, that I get an idea clearly demonstrated, and if I do not note it down it is soon forgotten and lost. Therefore, I think it would be a great help if everyone would write down and bring to the meeting such things as they may think of from time to time. Either in the way of questions or improvements, let no good idea be lost, for we need all the help we can get.

Platteville, Wis.

* * *

Bee-Keepers' Union.—The Eastern New York Bee-Keepers' Union Association, will hold their eighth semi-annual Convention on Tuesday, Sept. 27, 1881, at 10 a. m., at Knowersville, N. Y. All bee-keepers are invited to attend. W. D. WRIGHT, *Pres.*

N. D. WEST, *Sec.*

* * *

☞ The Southern California District Bee-Keepers' Association will hold its annual meeting in Los Angeles City, Sept. 8, 9, and 10, 1881. All persons interested in bees and honey are respectfully invited to attend.

J. E. PLEASANTS, *Pres.*

Anaheim, Cal.

* * *

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. MILLER, M. D., *Pres.*

C. C. COFFINBERRY, *Sec.*

* * *

☞ The Eastern Michigan bee-keepers' Association will hold its fall meeting in Detroit, Oct. 4, in the Y. M. C. A. hall, at 10 o'clock a. m.

A. B. WEED, *Sec.*

* * *

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.

N. E. FRANCE, *Sec.*, Platteville, Wis.

* * *

☞ The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting Aug. 30, at Rock City, Stephenson Co., Ill. JONATHAN STEWART, *Sec.*

SELECTIONS FROM OUR LETTER BOX

The Fall Honey Yield.—Bees are doing well here now; they are working on buckwheat. I received a good crop of clover honey, and I think we will of buckwheat and other fall flowers. I attribute my success to the JOURNAL and Cook's "Manual of the Apiary." Success to each.

A. RHINEHART.

Corning, N. Y., Aug. 15, 1881.

My Season's Report.—In the spring of 1880 I had 24 colonies of bees—blacks and hybrids. I obtained 2,000 pounds of comb honey and 800 pounds of extracted, and increased to 45. In October they were packed in chaff on their summer stands. On March 1 all were alive except 2 that starved, and nearly all were apparently strong and in good condition. As they were nearly out of stores, I opened the hives frequently and gave them honey and sugar candy over the frames. This disturbance, combined with the long, cold spring, caused them to dwindle, and only 15 colonies survived; 11 colonies swarmed out, abandoning brood in all stages, 2 leaving as late as the middle of May, when they were apparently prosperous. The queens in these colonies were given to strong ones that were queenless. I lost 10 queens in 4 colonies; they would lay a few days and then disappear. Out of 50 colonies in box hives, unprotected, belonging to different families, there are 6 alive. Mr. Stanton, of Sheridan, had 56 colonies last fall; 20 were in the winter hive; of these only one died; 36 were in single-walled hives, with chaff in the caps; of these only 15 lived, and they were very weak. The bees in the winter hive did not dwindle. I had one chaff hive, but that one did not have a pint of bees. I like those hives; they have all the capacity for side-storing or extracting that can be desired, or the side spaces can be used for queen-rearing, and storing given above, and they are the nearest approach to a non-swarming hive of anything I have seen. One man at Ionia, 14 miles from here, had 22 colonies, packed the same as in the winter hive, and he only lost 2, and they came through in good condition. I purchased 10 of these colonies, and have now 57. I have 2 natural swarms that have gathered 80 pounds each of comb honey; I have 600 pounds of comb honey (clover and basswood), and the same of extracted. The bees are getting honey now from buckwheat. A few weeks ago, as I was cutting out queen-cells, one hatched in my hand. I caged her and placed the cage in a nucleus; in 2 days I released her; she crawled onto a comb and immediately attacked a worker bee and stung it to death; in a few days she was laying. What a diversity of opinion there is on the subject of bee-keeping. I wonder why it is that men who are equals in intelligence, ability, experience and success, should differ so much in regard to the successful management of the apiary! In the face of all these conflicting theories the beginner has to use his own judgment, and learn by experience.

MRS. A. M. SANDERS.

Sheridan, Mich., Aug. 12, 1880.

[Men differ on every conceivable subject—on science, politics and religion just as much as on theoretical bee-keeping—though they *are* "equals in intelligence, ability, experience and success."—ED.]

Irresponsible Supply Dealers.—I am out $10 for attempting to deal with irresponsible parties, besides the loss sustained by not having the section boxes ordered early, until late in the season. I think that when dealers prove unreliable or dishonest they should be exposed, so that others need not suffer loss by dealing with them. Bees are doing finely here now on white clover; it was getting dry, but we have had a fine shower which will give clover another start. Success to the Weekly BEE JOURNAL. It is supplying a need long felt by apiarists, and when changed to the new form for next year, it will be better than ever.

S. H. MALLORY.

Decatur, Mich.

Milkweed.—I send a bee with what appears to me a fungus growth upon its neck and the lower part of its legs. I find the workers of their own hive dragging a number of them out. This is taking place among other bees besides my own. This is among the black bees exclusively. I have Palestine and Italian bees, but it does not occur among them. I have put them under a 1-5 power glass of my microscope, but cannot tell what it is.

I. R. GAST, M. D.

Mifflinburg, Pa., Aug. 10, 1881.

[The bee sent was weighted down with pollen masses of the milkweed (*Asclepius*).—A. J. COOK.]

Ants.—To drive ants from bee hives take a handful of tansy leaves and rub and scatter them about the part infested, and the ants will leave. Try it. If you have none growing plant some near the bee yard, to have it handy.

J. M. VALENTINE.

Carlinville, Ill.

Dry Weather and no Honey.—Bees are not doing very well; the weather is dry and I have no surplus up to this time. I put on top story and sections with foundation starters about a month ago, but the bees do not seem to take to it.

C. W. FISHER.

Lewis, Iowa, Aug. 9, 1881.

The Basswood Yield.—Basswood has come and gone; for 2 years before this the yield of honey from it has been very light, and this year was no exception to what is getting to be the rule, in this section; but perhaps the fact that a steam mill within one mile of my place is sawing it into lumber, at the rate of 500,000 feet per year, has something to do with the yield of it. Bees are now doing the best I ever saw them, at this time of the year, from the second crop of white clover. They hardly pay any attention to buckwheat, although there is plenty near.

N. F. CASE.

Glensdale, N. Y., Aug. 9, 1881.

[The axe has more to do with it than many think. We must plant for honey or get none, after a short time.—ED.]

Well Done.—My bees have done well this season. I commenced with 16 colonies in the spring and transferred 9 of them from the box hive into the Jones hive, and increased to 32. I bought 3 colonies, making 35 on hand now, and I have taken about 2,200 pounds of honey since the spring, mostly extracted. We had a good season for honey.

W. G. RUSSELL.

Millbrook, Ont., Aug. 15, 1881.

Honey-Dew.—I would like to ask through the BEE JOURNAL, where does honey-dew come from? My bees were quite busy this spring on an oak tree that stands close by my shop. Some say it comes from a little insect; others, that it is dew which falls on the tree, but this oak tree stands under a big sycamore tree, and not a particle of the dew was on the sycamore tree, while the oak swarmed with bees every day for weeks, and other trees close by had none of the dew on them. I think it is the overflow of sap from the tree.

JOHN BOERSTLER.

Gilead, Ill., Aug. 13, 1881.

[The origin of honey-dew is a question of doubt among scientists. Some hold that it is an excrement emitted by Aphides, a small species of insect; others claim that it is the exudation of sap through the surface pores of the leaves.—ED.]

Large Bee Hives.—I bought my first colony of bees in a hive 12x12 and 10 inches deep. Of course I made all of my hives of that size, until I became tired of it. I made different styles of hives and frames after that, and this spring I made one 18 inches from front to rear, 20 inches from side to side, 9¾ inches deep, and 2 stories high. In this hive I put a good colony that wintered on 3 Langstroth frames; the spaces between the combs were ¾ inches, and they contained sealed honey from top to bottom. Those frames were not only covered with bees, but crowded, and were wintered in a cellar. I never thought that a good colony of bees could be put on 3 combs, but it can be done. Bees never rear brood when crowded like that; but by giving them the whole hive and combs, bringing the honey from the outside combs to the center, they will rear brood and get uneasy. I was induced to make this large hive by Mr. Langstroth's article in *Gleanings*, in which he said a hive 18 inches from front to rear, and 18 inches from side to side, gave the best results. My hive is 20 inches from side to side and takes 28 frames, 14 below and 14 in the upper story. The queen in this hive had 10 combs well filled with brood all the time, until I took one of brood away and gave it to a nucleus; then she kept 9 full. I tried to make her lay in another frame, so as to have 10 again, but she would not do it. This colony did not swarm, and gave the best results I ever had. I shall make all my hives of that size for the coming year. I have a number of queens that will be 2 years of age next June; they have been good layers all summer, and I thought of getting young queens in their place—will they be as good next spring as they were this spring?

WM. FRITZE.

Duluth, Minn., Aug. 14, 1881.

[As your queens will be but 2 years old next June, they should be good yet; good, robust queens are thought to be better the second season than the first.—ED.]

Suitable Size for Nuclei.—In reply to Samuel Coulthard I would say that I do not claim to be an extensive queen-breeder, although I have been rearing queens, more or less, for the past 12 years. I prefer making nuclei boxes to suit the frames of the hive I use. I would make them large enough to hold 2 or 3 frames; if the nuclei is to contain but one frame, the remaining space can be filled with 1 or 2 division-boards, as the case may be, and then it is an easy matter to add a frame of unsealed brood, as such is sometimes necessary. A full-sized hive answers as well for nuclei, only they cost more. In making boxes for nuclei I allow 1 7-16 inches for each frame. I have taken the BEE JOURNAL for a number of years, and must say that I am well pleased with the change from Monthly to Weekly. I could not well do without it.

JAMES P. STERRITT.

Sheakleyville, Pa., Aug. 12, 1881.

All Dried Up.—Bees did very well here the first part of the season, until the present excessive drouth commenced. We still have no rain—pasture and all kinds of flowers are completely dried up. We can only get our bees through by heavily feeding.

J. B. R. SHERRICK.

Mt. Zion, Ill., Aug. 17, 1881.

Melilot or Sweet Clover.—I bought some of this because you recommended it so highly as a honey producer. I sowed early in the spring, on a rich wheat field, as a test I before sowed a little with spider plant; that sowed with spider plant has grown from 2 to 6 feet high, and bloomed finely. On one stalk from one seed, branching out in every direction like a peach tree, I counted 31 blossoms, and this present great drouth does not affect it, while everything else is dead, and bees are starving. I wish I had put 2 acres of this in good rich soil, and tilled it well. I think it would have been $200 to me this summer. The question is, what is Bokhara clover? is it an annual? if so, I have lost all my seed and labor sowing with wheat. My wheat was planted on very dry land. Spider plant done moderately well. The drouth has killed a part of the alsike clover; I had one acre, sowed last year; in the early summer it was literally covered with bees all day. Success to the BEE JOURNAL.

ASBURY MCKNIGHT.

Bible Grove, Ill., Aug. 13, 1881.

[Bokhara, melilot and sweet clover are virtually one and the same; at least we can see no difference. It is a biennal, and that planted with the wheat is not lost.—ED.]

Large Crop of Honey in New York.—The yield of honey in this section is very good. The largest yield of extracted honey for a single colony I have known here has been 306 pounds. My largest (the largest I have weighed but I think equalled or excelled by 1 or 2 others) has been 218 pounds, with about 30 pounds of buckwheat still to extract.

C. M. BEAN.

McGrawville, N. Y., Aug. 16, 1881.

Rearing Pure Queens.—Please give, through the BEE JOURNAL, the best way to rear pure Italian queens, from a pure queen, among a hundred colonies of black bees? I have a very fine queen I received, a year ago, of A. H. Newman; she is the finest I ever saw. Her progeny is perfect. I have some red clover queens, from a queen purchased of A. I. Root, but they breed all colors from a light colored Italian to a black; they work on red clover in preference to white clover or anything else, except basswood (which amounts to nothing here this season) and goldenrod. My bees done splendidly early in the season, but since July 1 all they have done is breeding, which has been immense. It is favorable for a good crop from this on. I shall endeavor to rear pure queens next season, and want the best way, under the circumstances. The JOURNAL would be welcome daily, or as it is.

A. J. NORRIS.

Cedar Falls, Iowa, Aug. 18, 1881.

[It is of no use to try to rear pure Italian queens among 100 colonies of native bees. By removing the colony of pure bees to some remote part of the farm you may accomplish it.—ED.]

Foul Brood Again.—There is no doubt that boiling hives, frames, etc., is a sure cure for foul brood, for I have the authority of Mr. J. S. Harbison, who, when at Sacramento, was troubled so much that he made a tank to boil his hives in. If we could heat the wax to the same point there would be none of the foul brood germs left in it, but it is almost impossible to do it. I render all of mine under glass in my honey tank, at about 150° or 160°, and could melt my wax and make foundation in the summer time, never using fire heat, if I wanted to; so, for one, I do not want any foundation made from foul brood wax.

S. S. BUTLER, M. D.

Los Gatos, Cal., Aug. 10, 1881.

[We doubt whether any insect life could withstand, for any considerable time, the amount of heat necessary to transform comb into foundation; nor would contagious influences. What Dr. Butler might do without fire heat, is not the method pursued by foundation manufacturers; they find a much greater amount of heat necessary to do expeditious work.—ED.]

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881.

O. R. GOODNO, *Sec*.

SPECIAL NOTICES.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

◆

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆

☞ Articles for publication must be written on a separate piece of paper from items of business.

◆

Photographs of prominent Apiarists —Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

◆

☞ When changing a postoffice address, mention the *old* as well as the new address.

◆

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

The Beauty and Color of the hair may be safely regained by using Parker's Hair Balsam, which is much admired for its perfume, cleanliness, and dandruff eradicating properties. 31w4

◆

Nearly all the ills that Afflict Mankind can be prevented and cured by keeping the stomach, liver and kidneys in perfect working order. There is no medicine known that will do this as quickly and surely, without interfering with your duties, as Parker's Ginger Tonic. See advertisement. 31w4

◆

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

◆

Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. It will pay to devote a few hours to the BEE JOURNAL.

◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

◆

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—New honey is coming in freely and the demand is good.

We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 7@9c.

BEESWAX—Prime quality, 18@20c.

AL. H. NEWMAN, 972 W. Madison St.
Chicago, Aug. 20, 1881.

NEW YORK.

HONEY—There is no settled market price yet for honey, as there is none selling.

We quote as follows: White comb, in small boxes, 15@18c; dark, in small boxes, 12@15c. Extracted, white, 10@12c.; dark, 7@9c.

BEESWAX.—Prime quality, 22@24c.

THORN & CO., 11 and 13 Devoe avenue.
New York, Aug. 18, 1881.

CINCINNATI.

HONEY.—Last week I paid King Cramer 17c. per lb. for a lot of about 2,000 lbs. It was in the Muth sections, 5¼x6, without separators. Every comb is perfect, which speaks well for the producer. If Mr. Cramer did not succeed, this season, in establishing rules for queen fertilization, he succeeded admirably in getting one of the finest lots of comb honey in the country. Extracted honey is just commencing to be in good demand.

I quote: Good comb honey, in sections, is worth 14@16c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.
Cincinnati, Aug. 13, 1881.

ST. LOUIS.

HONEY—At present the market is prostrated; there is no activity whatever. Aside from a sale on Monday of 13 bbls. old Louisiana at 5½c., nothing reported. We quote: New, strained, 7@8c.; extracted, in cans, 9@10c.; comb, 12@13c.; old is nominal.

BEESWAX—Prime yellow sells at 21c.

R. C. GREER & CO., 117 N. Main Street.
St. Louis, Mo., Aug. 18, 1881.

BOSTON.

HONEY—The prices of honey are not regularly quoted in our papers here. We quote: Honey in 1 pound sections retails at 25c.; in 2 pound sections, 20c.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street,
Boston, Mass., Aug. 17, 1881.

CLEVELAND.

HONEY—Comb honey, in unglassed sections, is in extraordinary demand at 19@20c. for 1 lb. white and 18@19c. for 2 lb. sections. Extracted honey is not so lively, but salable at 10@12½c. per lb. in 30 to 50 lb. cans.

BEESWAX—19@25c.

A. C. KENDEL, 115 Ontario Street.
Cleveland, O., Aug. 18, 1881.

SAN FRANCISCO.

HONEY—An invoice of 267 cases and 7 bbls. was forwarded this week to Liverpool, shipped by a packing firm. The market is quiet, but holders are not disposed to shade rates.

We quote white comb, 14@16c.; dark to good, 11@13c. Extracted, choice to extra white, 9@10½c.; dark and candied, 7@8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., Aug. 13, 1881.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept. 27—Eastern N. Y. Union, Knowersville, N. Y.
N. D. West, Sec. Middleburg, N. Y.
Oct. 4—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
6—Union Kentucky, at Shelbyville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
5-7—National, at Lexington, Ky.
Dr. E. Parmly, Sec., New York City.
12—Kentucky State, at Louisville, Ky.
11, 12—Northern Michigan, at Maple Rapids.
O. R. Goodno, Sec., Carson City, Mich.
11, 12—Northeastern Wis., at Pewaukee, Wis.
Frances Dunham, Sec., DePere, Wis.
12—Central Ky., in Exp. B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
25, 26—Northwestern District, at Chicago, Ill.
C. C. Coffinberry. Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.

1882.
Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May ——Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

CLUBBING LIST.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T.G.Newman)		..$2 00
and Gleanings in Bee-Culture (A.I.Root)	3 00..	2 75
Bee-Keepers' Magazine (A.J.King)	3 00..	2 60
Bee-Keepers' Exchange (J.H.Nellis)	2 75..	2 50
The 4 above-named papers	4 75..	3 75
Bee-Keepers' Instructor (W.Thomas)	2 50..	2 35
Bee-Keepers' Guide (A.G.Hill)	2 50..	2 35
Kansas Bee-Keeper	2 30..	2 15
The 7 above-named papers	6 05..	5 00
Prof. Cook's Manual (bound in cloth)	3 25..	3 00
Bee-Culture (T.G.Newman)	2 40..	2 25
Binder for Weekly, 1881	2 85..	2 75

For Semi-monthly Bee Journal, $1.00 less.
For Monthly Bee Journal, $1.50 less.

TIN PAILS FOR HONEY.

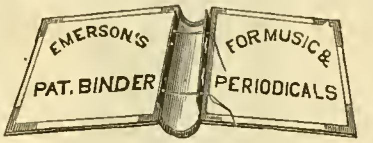
These Pails have a full cover, and are excellent for marketing Candied Honey. The gallon and half gallon pails have a bail or handle, the quarts and pints have none.

Assorted samples of the four sizes, put inside one another as a nest, price 50 cents. These pails are very useful for many other purposes, after being emptied of the honey by consumers. The following are the prices:

	Per Doz.	Per 100
Gallon, holding 10 lbs. of honey....	$1.80....	$12.00
Half Gallon, " 5 " "	1.50....	9.00
Quart, " 2½ " " ...	1.20....	7.00
Pint, " 1¼ " "	.75....	4.00

ALFRED H. NEWMAN,
972 West Madison Street, Chicago, Ill.

EMERSON BINDERS.



☞ **Binders for the Weekly Bee Journal, of 1881**, cloth and paper, **postpaid, 85 cents.**

We can furnish Emerson's Binders, gilt lettered on the back, for AMERICAN BEE JOURNAL for **1880**, at the following prices, postage paid:

Cloth and paper, each......................50c.
Leather and cloth..........................75c.

☞ We can also furnish the Binder for any Paper or Magazine desired.

THOMAS G. NEWMAN,
974 West Madison Street, **Chicago, Ill.**

Floreston Cologne The Most Fragrant and Lasting of all Perfumes. New, & Fashionable Sold by dealers in Drugs & Perfumery. Signature of Hiscox & Co., N. Y., on every bottle.

All Farmers, Mothers, Business Men, Mechanics, &c., who are tired out by work or worry, and all who are miserable with Dyspepsia, Rheumatism, Neuralgia, or Bowel, Kidney or Liver Complaints, you can be invigorated and cured by using

PARKER'S GINGER TONIC

If you are wasting away with Consumption, Dissipation or any weakness, you will find Parker's Ginger Tonic the greatest Blood Fertilizer and the **Best Health & Strength Restorer you Can Use** and far superior to Bitters and other Tonics, as it builds up the system, but never intoxicates. 50 ct. and $1 sizes. HISCOX & Co., Chemists, N Y.

PARKER'S HAIR BALSAM Removes Dandruff Prevents Baldness Restores Color

ELECTROTYPES

Of Engravings used in the Bee Journal for sale at 25 cents per square inch—no single cut sold for less than 50c. **THOMAS G. NEWMAN,**
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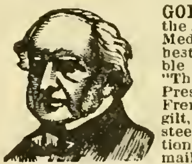

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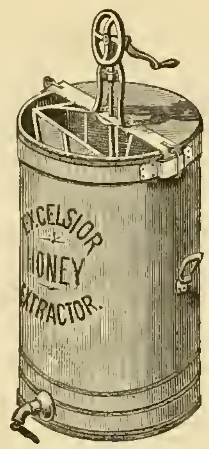

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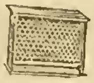

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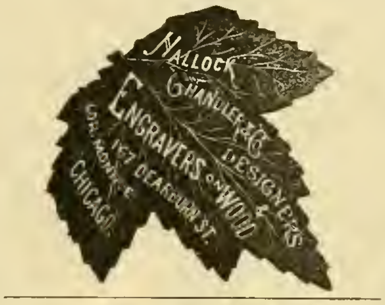

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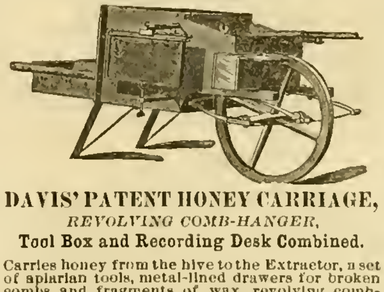

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We have been accustomed to consider "competition as the life of trade," but it will be well to remember that an unremunerative rivalry is also sometimes the *death* of it. A moment's reflection will convince all that every person who transacts trade must make a legitimate profit upon what is bought and sold, in order to defray the necessary expenses connected with the carrying on of that business, as well as to pay for the time given to it.

If irresponsible parties cut these figures so much that honorable dealers cannot derive a legitimate profit, then one of two things must happen—either the business will all go into the hands of the dishonest, by the prudent withdrawal of the honorable dealers, or all will go to ruin together.

Buyers are much to blame for seeking to find the one who *cuts* the figures most, and then trust him with their money, but very often have to mourn its loss, or the non-reception of the goods ordered within a reasonable time—thus making them practically useless to him. By giving encouragement to unscrupulous dealers—sending orders for queens, bees or supplies to those who offer them at ruinous rates—bee-keepers bring upon themselves the loss of their money in many cases, and also contribute to the more disastrous result of driving honorable dealers from the business in disgust.

We are casting reflections on no individual dealer, and only wish to enforce the lesson, that getting "something for nothing" should never be expected. All should send their orders to reliable persons, and get the best, quality considered, for a *fair* price. If all will do this for the next season we shall hear far less complaints, and be doing our share of the work in "building up," instead of "tearing down."

The Weekly BEE JOURNAL desires to remedy this evil as much as possible, and would suggest to dealers that it would enhance the interests of the fraternity to have a standard price current, of all kinds of apiarian supplies, so that bee-keepers can buy at their nearest reliable supply depot, at the same price as at a distant point, and thus save freight and express charges. This will, in some small measure, remedy the evil, but will not cure it. That cannot be done until all the "irresponsible" dealers are forced out of the business by apiarists who will refuse to buy anything of them.

We submit these thoughts, on the "events of the hour," to the earnest consideration of all interested in the welfare and development of progressive bee-culture.

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Borage.—Robert G. Smith, Falkenburg, Ont., writes us under date of August 25th:

> Herewith inclosed you will find the flower and leaf of a plant that my bees work on from morning till night. Can you tell me the name of it? We have abundance of goldenrod, but I have not seen a bee on it yet. Will Italians work on it—mine are hybrids. Is mullein considered a good honey plant?

The flower and leaf is borage (*Borago officinalis*). Italian, hybrid and black bees should all work on goldenrod, and yours will probably be busy on it ere the receipt of this paper. We have never observed bees working on mullein, and do not think much of it for honey. In some locations, and under certain circumstances, bees may find a little honey in it, but not enough to justify fostering it.

Lecture at St. Joseph, Mo.

We have consented to give a lecture on "Bees and Honey," at the Court House in St. Joseph, under the auspices of the apiarian department of the St. Joseph (Mo.) Inter-State Exposition, on Thursday, Sept. 8, 1881, at 8 p. m. R. S. Musser, Esq., the Superintendent of the department of apiculture, seems determined not only to have a very fine display of bees, honey, apiarian implements, etc., but also to try to elevate the science and beget a progressive spirit in the honey producers of the Missouri Valley.

We hope to see a large number of the intelligent bee-keepers of the Missouri Valley at this meeting; we shall endeavor to elucidate many points of interest to those who keep bees and produce honey. Let there be a general rally.

EXCURSION RATES.—The following roads will charge passengers ½ rates to and from the Exposition from all stations on their line: Saint Joseph & Des Moines. Wabash, St. Louis & Pacific, The Kansas City, St. Joseph & Council Bluffs, Hannibal & St Joseph, St. Joseph & Western, Atchison & Nebraska, Missouri Pacific, Kansas Pacific, Central Branch Union Pacific, Chicago, Burlington & Quincy.

◆

The Indiana State Fair.—The premium list has been increased 20 per cent. Improvements are ordered, and every arrangement will be made for the comfort of exhibitors and visitors. The Capital City will put on its holiday attire. The Public Institutions will be prepared to receive visitors during the Fair week. Railroads will, as usual, carry passengers and freight at ½ rates, and all combined will make the State Fair the great event of the season. Preparation days, Sept. 22, 23 and 24, so that the Fair will open and Committees on Awards begin work on Monday, Sept. 26. The increased interest is demonstrated by the unusual amount of applications for space and other business connected with the Fair thus early.

◆

Local Fairs.—Bee-keepers attending fairs this fall should have a few bee-keepers' manuals, etc., with their exhibits. When taken in ½ dozen lots by express, for this purpose, we will supply any or all kinds, or one or two of each to make the half dozen, at 30 per cent. discount. If wanted by mail, add the postage. We do not send any "on sale or return." We will furnish copies of the BEE JOURNAL *free* for distribution at fairs.

Taking Him at His Word.

Page 413 of *Gleanings* for August contains the following very singular announcement:

> I agree to be responsible for my advertisers, and if Mr. Burch, or any other one, fails to send the goods, or return the money, I will pay back the amount as soon as it is determined that it cannot be collected of such advertiser. It does not seem to me that I should be responsible for damages resulting from delays in filling orders.

Novice has certainly inaugurated a novel feature as a publisher, and one quite as unbusiness-like, though perhaps less reprehensible, than some of H. A. Burch *& Co.'s* practices. We cannot agree with Mr. Root that he is not as much morally bound to make restitution for damages occasioned by excessive delays in filling orders, as for the money actually remitted. It is easy to imagine cases wherein the latter would sink into insignificance in a comparison. But Mr. Root's whole position is not only unbusiness-like, but it is *morally* wrong; it shifts all legal responsibility from the contracting party; it assumes obligations without having received an equivalent; it is a temptation to buyers to relax vigilance in the settlement of private transactions; and it *is an incentive to dishonest practices* on the part of advertisers.

In the article above referred to Mr. Root schedules about $400, which he virtually assumes to pay for H. A. Burch *& Co.*—with many more yet to hear from. It is incomprehensible to us how any sane man can establish such a business precedent. By a perusal of the correspondence below, it will be seen he has been taken at his word—not by the parties enumerated in the schedule, but by H. A. Burch *& Co.* Where this matter will end, it is impossible to foretell; but how it will end can be easily imagined. The following letter is from a former correspondent on this subject:

> I have at last heard from H. A. Burch & Co., in the shape of a circular on postal card, the contents of which are as follows:
>
> "Notwithstanding that we have labored earnestly and constantly the present season to fill all our orders, our books show that many are yet unfilled, yours being among the number. In view of what Mr. A. I. Root, of Medina, Ohio, has seen fit to say about us and our business in the July and August numbers of his *Gleanings*, we request you to make out a statement of your account with us and mail him at once for payment, which he will probably do, as per agreement—we will settle with him for the same. In

case he refuses to do this, please report it to us at once. Our reasons for taking Mr. Root at his word will be given you all before many months.—H. A. BURCH & Co."

For the most unblushing effrontery, this firm, I think, will "take the cake." Their business practices will get well aired shortly. E. E. WORTHEN.

Wellsburg, W. Va., Aug. 17, 1881.

The South Haven, Mich., *Sentinel* copies the article from the Weekly BEE JOURNAL of Aug. 17, and then comments as follows:

> Too much stress should not be put on the statement of H. A. Burch that he is working eighteen hours per day to fill orders, or on any other excuse he makes. In our next issue we will give a case where he has had money since June, 1879, *two years and two months*, for which the remitter has not received his goods, Mr. Burch making this "eighteen hours a day" plea in *July of last year*. We presume the BEE JOURNAL and the *Gleanings* hope his partner (?) the "Co." part of the firm, will return with wealth to make good the claims of apiarists in different portions of the country. Your excuses are too thin, Master Herbert; your only excuse to be made is *thorough restitution of the money*, or an acknowledgment that you really are what so many people consider you.

On the other hand, Mr. G. W. Stanley, of Wyoming, N. Y., was at this office in June last, *en route* for South Haven, Mich., for the purpose of getting satisfaction for himself and others from Mr. Burch, or "close him up, if possible," to use his own language. He went, and on his return to New York he wrote the following to this office, according to promise, to let us know the *true* state of Mr. Burch's affairs:

> I have arrived home at last, and will tell you what success I had. When I called on Mr. Burch I found him very busy with his bees, putting up a lot to ship to a man in Indiana, and I must say they were a very fine lot. I could find nothing about him in his own town to make me think he had any idea of *beating* any one, but, on the contrary, found that he had a great many friends, and was working from 4 o'clock in the morning until 11 or 12 at night to fill orders and to overthrow the charges of *fraud* that are brought up against him. True, Mr. B. is a poor man, but is doing all in his power to not only fill his orders, but to give good satisfaction to all those who send to him for goods. He had, when I found him, 226 colonies of bees in his yard, besides about 40 nuclei, and has a good stock of Dunham foundation and wax on hand.
>
> I can tell you why he advertises that his bees did not die, like those of other bee-keepers, last winter (this I learned from other parties). When he sent out his circulars his bees were in fine condition, but they were allowed to starve late in the spring by the man who had charge of them, and then he (Mr. Burch) had to take the money that was sent in and buy more to fill the orders. Of course, if all those who have ordered goods of him should claim their money at one time he could not pay them all, but he has bees and other goods such as they have ordered to fill the orders, and is doing so just as fast as he can possibly send out the goods.
>
> Mr. Burch has more than satisfied me, and gives me a much better lot of goods than my order calls for, and when I wished the money refunded for one of my men, he seemed perfectly willing to do it, and paid over the amount in full. I will say that so far as I have dealt with *good, honest men*, H. A. Burch does not fall below the average. G. W. STANLEY.
>
> Wyoming, N. Y., July 4, 1881.

The above letter from Mr. Stanley staved off the "trouble" for a month, so far as we were concerned. He went there prepared for war, and came away saying, "So far as I have dealt with *good, honest men*, H. A. Burch does not fall below the average."

Our readers now have an outline of the whole matter before them, and must form their own conclusions.

Since the foregoing was placed in the hands of the printer, a subsequent letter has been received from Mr. Stanley, bearing date Aug. 22, from which we make the following extract:

> Our Burch bees are good ones, and I have no reason to complain of Burch in view of the straightforward way in which he dealt with me.

We have received letters, from several parties, complaining bitterly of the manner of doing business by two or three queen-breeders and supply dealers; but hope it will not be necessary to publish them.

AMONG OUR EXCHANGES

MISCELLANEOUS.

The Uses of Honey.—A paper named *Food of Health* remarks as follows:

> Honey can be used in lieu of sugar for almost all kinds of domestic use. It has no superior in the canning and preserving of fruits, making strawberry shortcake, etc. Many persons claim that honey disagrees with them—makes them sick. This is a mistaken idea and is owing to those persons having eaten honey mixed with the poison of the bee, bee bread, larvæ, bees, etc., as the old fashioned strained honey used to be. But the honey of to-day, such as is produced by intelligent bee-keepers, and bearing their own label, is pure nectar, free from all deleterious substances, and is by far the purest and most healthful sweet known. As an article for the table, both useful and ornamental, what can be superior to comb honey? This is now procured mostly in small frames and is removed from the hives as soon as it is sealed, thus preserving its delicate whiteness. But for use in the cuisine extracted honey is superior, as it is free from wax, being thrown from the comb by centrifugal force.

How, What and When to Feed.—Mr. L. C. Root, in the *American Agriculturist*, says:

> In most localities the season for honey gathering to any great extent has now passed. Some sections will afford honey from Sweet Clover (Melilot), and others from Golden Rod, Aster, Eupatorium, and all fall flowers. In August I urged the necessity of not endeavoring to secure too much surplus, and thus leave the brood combs with too little honey for the bees to winter upon. There will be cases where the honey yield closes very abruptly, when the combs will be fully occupied with brood, and the honey almost entirely stowed above in the boxes. Where this is the case, the bees must be fed. Where fall flowers are abundant, and more honey may be stored than is necessary for winter, empty combs should be supplied, and honey stored for spring feeding.
>
> If there are exceptional cases where from improper management, or from causes referred to above, we find feeding necessary, what shall we feed? I answer, let it be pure honey. I have heretofore advocated the use of the best "A" sugar, but time has changed in our practice. The darker grades of honey are now so low in price that it is no longer to our interest to feed cane sugar and sell our honey. But our strongest argument against feeding other sweets than honey is, that great efforts must be made by bee-keepers everywhere to preserve the standard of purity of honey. For this reason, I urge that no other food than honey be used for our bees. I am well aware that cane sugar may be used for wintering in such a manner that all of it will be consumed by the bees, but as we advance in the business, I find it desirable to feed more freely. While so many articles of a saccharine nature are being so freely and vilely adulterated, bee-keepers should avoid even the appearance of adulteration.
>
> See to it that each colony is supplied with a good prolific queen. It is important that all queens be of good quality uopn entering winter-quarters.

Pasture for Bees a Necessity.—Mr. W. Camm, in the *Bee-Keepers' Guide*, says:

> Every season convinces me more and more that bee-keepers must sow honey plants and provide pasture for his bees, and provide if possible a succession of bloom. I sowed 2 or 3 acres of mellilot this spring, on poor, clay hill points; and where sown in oats, it makes a poor show, but where the ground was roughly plowed, and the mellilot alone sown, there is a good stand. Several acres of alsike also were sown, and in moist places it will bloom this fall, but in dry spots it will make a thin stand. These with white clover and buckwheat, will make our main honey crop except where linden is abundant. As I write, late showers seem to have started the honey again and at early dawn the bees fly as though they had found honey dew. I sowed a good deal of mustard but its period of blooming was so brief, the bees worked upon it so few hours each day, that I shall not sow it again. Catnip and a kind of wild, white flowered mint, is crowded from morning until night, and upon mignonette they swarm all through the heat of the day. A card from the Rev. A. Salisbury, Camargo, Ill., says that his patch of 5 acres of mellilot swarms with bees from time of flowering until frost, and that it completely bridged the season from white clover till fall bloom; but of quality and quantity of yield he would not speak, as 500 colonies more or less, had pastured on his patch till the present season.
>
> I would rather have common black bees with plenty of continuous bee bloom, than the best of Italians, Cyprians, or Hungarians and poor bee pasture.

Management of Comb Honey.—Mrs. L. Harrison, in the *Prairie Farmer*, gives the following advice:

> As soon as the cells are sealed, it should be removed, so as not to get discolored with the travel of the bees. To be gilt-edged, that is No. 1, its snowy whiteness should be preserved, and whoever has this kind to sell will win the day. We know bee-keepers who let the honey remain on the hives, until frost drives the bees down into the body of the hives, for warmth. The honey that remains on during the season becomes discolored, and has not that delicate tenderness that comb honey has that was built and filled quickly, and removed as soon as completed.
>
> In our early days of bee-keeping, we were yearly shipwrecked in the keeping of our honey, after we had followed these directions. "Why?" The place we kept it in was not according to bee-lore. We tried the cellar, an upstairs closet, an airy chamber, all with the same result. The honey would sweat, get watery and ooze through the comb and run from the boxes. When it was in this condition we would have to put it on to the bees again for them to dry it up, which they always quickly accomplished. We did not like doing our work twice over, and in our dilemma, thought we would try the kitchen, as we had failed in every available place. We wrapped the boxes in newspaper, tied them up securely, in order to keep dust, smoke or flies from defacing the wood, and put on top of a cupboard all the place would hold. There was a coal fire in this room to do the cooking, and at times the thermometer stood at 100° in the shade on the adjoining porch. We thought at the time that the great heat would melt it into a heap at the bottom of the boxes; but far from it, remaining perfectly dry—it was cured. Two years afterwards a lady who had purchased a box of it, showed us a comb, saying; "I can handle it as easily as a piece of cake—it is dry and not sticky one particle." Our experience proves to us, that to keep honey perfectly, it must be kept in a hot, dry, airy place. Other localities may differ in this respect, we have only experience in this locality.

Clover as a Fertilizer.—Discussing the mysteries of fertilization, the *American Cultivator* thus alludes to experiments with clover:

> For the last forty years there has been no article known to agriculturists which has so largely claimed the attention of the men of science, or indirectly that of the farmer, as has nitrogen. Theory and practice alike have confirmed the opinion that there is no more important element, either in the vegetable or animal kingdom, than this, and yet how, or in what manner, or in what kind of combinations, it enters into the vegetable kingdom, we know no more than we did when the inquiry first began. We can discourse eloquently about the fertilizing qualities of Peruvian guano, we can tell how its fertilizing qualities depend on the amount of nitrogen entering into the plants and we know that clover is a wonderful fertilizer, that it leaves a large amount of nitrogen in the soil, in its roots and scattered leaves; but whether it did not accumulate the whole from the soil and present it to us in new compounds, or, through its leaves, presenting substances to the nitrogen in the atmosphere which would combine with it so that it could be carried to the soil, and made of advantage to other vegetation, we are to-day as ignorant as we were 100 years ago. But this we do know, that one kind of vegetation does furnish and prepare food for another kind, and in this way we find the practical value of alternating crops.
>
> Mr. Lawes, in 1873, experimented with barley and clover. He sowed half a field with barley without manure, which had been kept in crop the 3 previous years, and fertilized with artificial manures: the other half had been sown to clover the year previous. The yield of barley was 31 bushels to the acre, and clover 3 tons 48 pounds per acre. The next year the whole field was sown to barley without manure. The half previously in barley gave 32¾ bushels; the other half after clover gave 58 bushels per acre. Thus we see that after taking off a very valuable crop of clover he had increased the fertility of the soil to almost double that of the half which had been in barley. Now, without entering into any speculative theories of where this amount of fertilizing material came from, we have the facts from which we cannot ignore that by the aid of clover the crop of barley was vastly increased. Nor can we without presumption say that this fertality was the result of nitrogen which the clover collected any more than it was the result of phoshoric acid and potash, which it had also collected,—for unless there were already accumulated in the soil these two principles equivalent to the requisitions of that amount of barley, it would have been in vain that the soil obtained through the clover the necessary amount of nitrogen.

Bee-Keepers' Union.—The Eastern New York Bee-Keepers' Union Association, will hold their eighth semi-annual Convention on Tuesday, Sept. 27, 1881, at 10 a. m., at Knowersville, N. Y. All bee-keepers are invited to attend. W. D. WRIGHT, *Pres.*

N. D. WEST, *Sec.*

CORRESPONDENCE.

For the American Bee Journal.

How to Winter Bees Successfully.

JAMES HEDDON.

I have just read the prize essay of Mr. Chas. Dadant on the above subject, and never before was I so struck with the difference in the actions of bees and the treatment they require, in different localities varying so little in latitude. In this article I will refer to some of these differences, and different conclusions arrived at therefrom. He says: "Bees in winter do not inhabit the combs which are filled with honey. They gather directly below the sealed honey."

Here this is true where hives are left with tight wood covers, but with the Langstroth hive the cluster rises to the cushion many times, clustering square upon solid sealed comb below, but almost universally filling the space between the top bars and cloth above all, through the winter, passing over from comb to comb in this space (which is about 2 inches) and working forward and back through the ranges between the combs, thus being able to avail themselves of any honey the hive may contain. The quilt seems to attract them to it.

I supposed the "water in winter" question was either unsettled or conceded that all attempts to supply colonies by means of sponges and panes of glass as condensers, had failed to give any satisfactory results.

Dysentery is the only winter trouble of any moment known in this vicinity. Whatever will cause winter breeding, will tend to engender the disease. If water will do it, then let us "keep dry." Perhaps from this cause lies the success of the use of absorbents above.

In regard to bees being unable to reach their stores, I have demonstrated that bees cannot pass from comb to comb through passages such as they have between the ends of the frames and the hive, when the hive is continually in a temperature of 42° F., but will starve with honey close to them. This being true, bees are hardly as safe in special repositories (where no special passage-room is made for them) as they are out-of-doors, unless the winter is of continued severity. Ordinarily, many times during winter the sun strikes the hive with sufficient warmth to raise the temperature in the hive so that the bees can pass over and around the frames. Here it is calculated that 25 pounds of honey are required to sustain a normal colony from the time that they cease gathering until they begin again. Only about one-half of this amount is required to feed the bees during the time they are confined to the hive. But little more than one-third is used if but little breeding takes place. Winter breeding, however successfully done, is of little or no value here.

That crystallizable sugar is most easily digested by the bees I have no doubt, but this fact plays but a small part in our success or failure to winter our bees, in my judgment, for if they eat pollen with it, dysentery and death will be apt to result.

About twelve years ago, in the month of October, I bought 15 colonies of bees in 10-frame Langstroth hives, of a neighboring farmer. Owing to the season, these hives were almost exclusively basswood honey (the most crystallizable we have here) and in less than six weeks after putting them away all were dead with dysentery in its worst form. They were in a choice cellar. I was first led to believe from the expressions of others, that late (dark) honey was unsafe for wintering bees upon. Experience, coupled with close observation, led me to believe that it was the best. I now think that the secret is this: when we have combs of fall honey we usually have them full to the exclusion of fall pollen, and in this lies our success.

Mr. Dadant speaks of "5 or 6 weeks" as a long time for bees to be confined, but says they will stand it if the honey is pure, etc. Last winter our 74 surviving colonies were completely confined for nearly 5 months, and that, too, during spells of continued cold of a severity seldom ever known here before, and a majority came through healthy and bright. All wintered out-of-doors, and a few entirely neglected.

One fall, in packing my bees, I left many with the brood cover tightly sealed, leaving no upward ventilation or absorbents above whatever. I lost about one-third of my colonies, but there was no difference in the condition of those with, and those without ventilation through absorbents above. Seeing no difference, I tried the same experiment the next winter, and obtained a decided preference in favor of the absorbents above, though a few, with no absorbents or other upward ventilation, were in fine order—wintered perfectly. May it not be that whenever tight tops act as condensers, and this tends to stimulate breeding, that dysentery results?

I always objected to imprisoning bees during winter, because the moment they find out they are prisoners, they become excited to a degree that causes them to eat all sorts of food obtainable, and unreasonable quantities of it. Next comes a statement in Mr. Dadant's article which, while I have no desire to question its being put into successful effect in his location, would be ready death here. I quote:

"Now, after a spell of more than a week of cold weather, as soon as the thermometer rises to 45° in the shade, I disturb every colony to compel their bees to fly out."

In successfully wintering bees in this climate, the first desideratum is to get the colony into that quiet, semi-dormant state which holds success in its hands for any length of time that it remains with them. This condition our bees nearly always enter into when first closed in by cold, and every time they are disturbed and aroused to activity, the chances for getting them back into this quiet state grow less; particularly so as the winter advances. Flights in the fore part of the winter are seldom of any benefit, not being needed; in the after part, they tend to stimulate breeding, which has a tendency to destroy our bees. Repeatedly have I noticed the evil effects of a "purifying flight." During the winter of 1874-75, I had housed about 35 colonies. Towards spring they had the dysentery badly, so much so that I lost all but 14 of them, and as the cold frame was then among the great discoveries, I put one I had in operation. I raised the mercury to the proper temperature (I think 60° or 70°), and placed under the glass, on a straw floor, three of the diseased colonies. They were strong in numbers, and flew and voided fully and satisfactorily (more so than they do out-of-doors in the same length of time), and returned to the hive with scarcely any loss. I was proud of my success, and determined to put more through the next day if the sun shone, and if not, as soon as it did. Before it shone, however, those three colonies, and those only, were dead. I have been told of three different instances where, in carrying out bees from the cellar in the spring to stay, a colony or two was overlooked, and not discovered till late in April or early in May. In every instance these colonies were the best of the season.

The only cases where I have noticed any good to arise from winter flights, were where the bees enjoyed several days of perfect freedom to bask in the sunshine, and that before the time for breeding to begin. This truly shortened the time of confinement, with no disastrous effects to more than offset the good obtained thereby.

It seems that in Mr. Dadant's locality the bees should "never be placed in the repository after a few days of cold weather," while George Grimm considers the reverse of this condition of things one of the requisites to success in his locality. Here, in our section, I think that some seasons early housing, before any cold weather has appeared, is best, while in other seasons a few cool, or even cold days are needed to get the stubborn bees into the semi-dormant state.

I have believed and held all along, that whatever the cause of our winter losses was, it was *one cause*, to which all other influences were as fox-fire to the sun, and at best only acting as aggravations to the great cause, and, as stated in my former article, I feel sure that the great main cause is the winter consumption of *bee-bread*. Last winter bees that were cellared were much better off than those that were left outside in this climate in any shape, because while those inside had the advantage of a less consumption of food (which resulted in many cases in a total abstinence from pollen-eating, though I know of one cellar full where all died), those outside had not the usual advantage of a thorough midwinter flight, or several of them, as was the case the winter before.

I know of several cases where packed colonies came through in splendid order, one lot being a whole apiary; other cases, where bees entirely neglected did usually well. But these were exceptional cases. I think last winter's experience gave no proofs why we should turn from the out-door packing to the cellar. Perhaps a little of both would be good for large apiaries. We often hear old residents say that years ago bees did not die during the winter if they had honey enough. I notice that at that time most of the honey was gathered from trees, while now, under a more advanced age of improvement of the country, these trees have been exchanged for weeds, the latter being greater pollen producers than the former, especially in the fall of the year.

Mr. Dadant's article, above referred to, is one of much thought and information, and I appreciate it. I only desire to point out the difference in treatment required in different localities.

Dowagiac, Mich., Aug. 8, 1881.

* * *

For the American Bee Journal.

How to Get Rid of Fertile Workers.

W. H. ANDREWS.

In the Bee Journal, Aug. 10, 1881, Mr. E. A. Thomas writes under the above quoted heading, and I feel sure that as a generous man he will not think it unkind if I question some of his teachings, both as to logic and facts.

First, he says: "I think there is a difference in colonies, for, while some will readily accept the means of obtaining a queen, others seem bent on their own destruction," etc. Now, this implies that some colonies have innate peculiarities less favorable in their own perpetuity than in the happy nature of others; this, in my humble judgment, is error not meant.

The difficulty in introducing queens and brood into queenless colonies increases with the length of time the colony remains queenless and the number of laying workers therein produced; there is no exception to this rule.

Second: "I have never had a full colony with a fertile worker, but now and then have a nucleus colony, which loses their first queen on going out to meet the drone, and so has no means of supplying the bees."

This implies at least one, and may be two of three things: 1st, that Mr. Thomas never had a full colony; 2d, that full colonies never lose their first queens; 3d, that when they do lose their first queens they are never without the means of supplying their loss. I take it that not one of these conclusions is correct in point of *fact*.

Third: "I watched her while she laid quite a number of eggs, the bees treating her with all the consideration they would a queen, and then I pinched her head."

I do not question the correctness of the statement that Mr. T. saw a worker lay quite a number of eggs, for I have seen quite a number of workers laying in the same comb at the same time, but that "consideration" business puzzles me, for I never saw *that*, or anything that I could mistake for it; if the other workers give the laying worker the consideration they are wont to give a queen, Mr. T. should have no occasion to be troubled about informing his readers as to the best mode of ridding a colony of *the* fertile worker, for he would only need to say, examine your combs, and when you see the other workers treating one worker "with all the consideration they would a queen, why, just there and then, pinch her head"—that would settle it. There is no mistaking the consideration given the queen by her workers.

I get rid of laying workers by giving the colony one frame of brood, in all stages, each day for 5 successive days, and the work is done.

A very good way is to put the colony into a transportation case (a light box made so as to receive a bee hive and shut it in bee-tight, with handles on each side) and set the case a few steps off, and then set a new hive on the old stand and put into it a comb of brood in all stages, and a comb of honey, then raise the rear end of the case lid slightly, so that the bees will find their way out slowly; at the end of the fourth day shake all the bees that still remain on the old comb off at the entrance of the new hive, and it is accomplished.

McKinney, Tex.

* * *

For the American Bee Journal.

The Degeneration of Bees.

S. S. BUTLER, M. D.

How to make and ruin an apiary by gradually reducing the vigor of the bees by artificial swarming is the question. Mr. G. W. Thompson, in the Bee Journal of May 25, page 166, in the 3d column, under the head of wintering, says:

"Meeting a man who keeps bees, some distance from my home, I asked how they wintered; he replied, first rate, sir. How many had you in the fall, said I. Eight. How many now, I inquired. Eight, doing finely, pointing to 8 weather-beaten pine boxes on a bench; no protection except some boards nailed against the fence. There they stood in January just as they did in August—no cellar, no chaff no dead-air space, and no dead bees."

Now, why did those bees winter well in those common hives with no protection, when so many over the country were lost? I claim that his bees had not lost any of their natural vigor or toughness, had not degenerated by either rearing forced queens himself or being near enough to one who has, for his queens to get fertilized by imperfect drones, from their forced (and as I claim imperfect) queens, thus giving workers not up to the regular standard in hardiness. The proof is that they wintered without loss. I defy anyone to give any other reason than that they had the necessary vigor and hardines to carry them through the winter in spite of the cold and long confinement. So would all those bees that were lost have been hardy enough to have carried them through, if it had not been for vigor lost by almost every bee-keeper rearing or buying, for years past, forced queens, and, by so doing, lowering the standard of his bees. It is almost impossible to find one who keeps bees in the common hive, who either rears a good many forced queens by driving or has a dividing neighbor near enough to spoil the vigor of his bees in a few years.

One of the first plans given us for forced swarming, with movable frame hives, was by dividing, by taking ½ of the combs and putting them into an empty hive, setting it beside the old one, the entrance of each being a little one side of the old one, so as to retain about the same amount of flying bees. This, of all the various plans of artificial swarming, has no doubt been practiced the most, and caused the most injury to the bees of the country.

Let us follow out the workings of this process and note its results. The queenless part rears one from larva, from 1 to 3 days old, making a queen not up to the standard of one reared by natural swarming, which will give workers that want honey in abundance close to the apiary, or else they will try to steal it from their more vigorous and successful neighbors. I had a cell sealed up in 45 hours where I put a frame of brood in a queenless colony to find out if they had one. Does any bee-keeper think *that* queen, if I had allowed her to have been fertilized, would have borne any comparison to one reared in a colony in a normal condition from an egg? This forced queen, if she lives till next spring (for they are short lived) will fill all the drone-comb in her hive (such being generally great drone layers). Those drones fertilizing queens, stamp their imperfect individuality on the workers, which have lost a portion of their toughness or vigor, and as queens are reared from those worker eggs; the next forced queen made by dividing is poorer still, giving the apiarist poor workers which bring him in but little honey. He goes on dividing (for he is getting rich, making colonies by the quantity, worth a good sum each).

What wonder if after this reducing system has been practiced for a few years, he finds his queens very short-lived and is puzzled about it! He reads that *queens* live from 3 to 5 years, and finds that his bees, that wintered almost any way the first few years, need a great deal of nursing, require costly chaff hives and cellars to winter them well, but when they get so reduced that they can stand but little, cellars or chaff hives do not save them in such a winter as the last. One who had been sneering at his "old fogy" neighbor with common box hives, who is far enough from him not to have his bees spoiled by drones raised from his poor *forced* queens, ought to see why his bees wintered so much better than his own. Forced queens give great quantities of imperfect workers, that the workers kill off in great quantities where they kill the drones.

Such are the results of too much dividing. How is it with forced queens reared in full colonies, largely advertised? The queen and brood are taken away, and after the bees get over their worry, they commence cells, often allowing the eggs given them to hatch and be fed worker food 1 or 2 days before giving them royal food and enlarging the cell. They generally start so many cells that the nurse bees are not able to furnish royal food for them to make perfect queens, although I have seen but 3 or 4 of those small half-starved looking cells in a large colony, that worried a long time at the loss of their mother and brood. I am satisfied that the difference in size of cells made by a swarm in normal condition, or an abnormal one, is the lack of ability to furnish a large quantity of royal food, so they half starve them; while in the large cells reared in the hive that has swarmed naturally, we often see a quantity in the cell after the queen has left. We never see any in the small cells, where the bees are forced to make a queen, no matter how they are forced.

Any one can demonstrate this matter, by rearing forced, instead of natural queens, as hundreds have, in the past, and reported by scores in the bee papers, about as follows: See *Gleanings* for Feb., 1881, page 84, by J. C. Phillips, this being an almost exact report: "I kept bees in the old fogy style till 1872, when I began with a movable comb hive with 2 stands, increased to 6 by dividing, got no honey; started next spring with the 6 (you see he wintered well); this and the two following seasons increased mostly by dividing to 15, took 600 lbs. honey; next year I increased by dividing to 35, and took 1500 lbs. honey; next spring I had 30 (he did not winter quite as well), increased to 75, mostly by dividing; the next May found me with 11, it being a good year, increased by dividing to 52." This brings him down to such a winter as the last, which, no matter how much pains he has taken in wintering, closes him out.

Los Gatos, Cal.

For the American Bee Journal.

A Model Prize List.

WM. F. CLARKE.

Complaint has often been justly made that at our great agricultural shows there has been scarcely any recognition of honey, hives, and bee-keepers' requisites. Generally speaking, this important productive industry is ignored, or nearly so. Under the influence of our Bee-Keepers' Association, formed last fall, "Canada's Great Fair," which holds in Toronto, from Sept. 5 to 17, has introduced a section into its prize list, the publication of which may perhaps act as an example and stimulous to the managers of other exhibitions in various parts of this continent. It is as follows:

Honey and Apiarian Supplies.

Entrance Fee, 25 cents.

Largest and best display of honey, $10, $5.
Best 10 pounds of extracted honey, $5, $3, $2.
Best 10 pounds of comb honey, $5, $3, $2.
Best methods of marketing extracted honey, $5, $3, $2.
Best methods of marketing comb honey, $5, $3, $2.
Best comb foundation for brood-chamber, diploma.
Best comb foundation for honey boxes, diploma.
Best and most scientific mode of wintering outdoors in any kind of a hive, $5, $2.
Best house for wintering bees and of most use for apiarian purposes in summer; working model to be on ground, represented by a scale of not less than one inch to the foot, $5, $2.
Best winter and summer hive, diploma.
Best and most practical invention for retaining even temperature in bee house, $3, $2.
Best wax extractor, diploma.
Best mode of securing the largest yield of box honey from a single hive, $3, $2.
Best and most valuable invention in bee hives not heretofore exhibited or made public, bronze medal.
Best non-swarming hive, diploma.
Best bee smoker, $2, $1.
Best honey knife, $2, $1.
Best honey extractor for general use, $2, $1.
Best exhibit of bees and new races of bees, diploma.
Best and largest display of apiarian supplies, $10, $5.
Best and most practical new invention for the apiarist, $5, $3.
Best form of hive, bronze medal.

Critical readers of the above will be able to detect deficiences in it, and it is only fair to say that it was prepared as the result of individual suggestion. Our Association as such, has not yet had an opportunity of considering it. No doubt, improvement will be made on it next year. Indeed, it would be a good thing if the North American Bee-Keepers' Association would bring its wisdom to bear on the matter of a prize list, which, with slight modifications, might do for all our State and Provincial exhibitions.

Listowel, Aug. 17, 1881.

For the American Bee Journal.

Introducing Queens.

A. F. MOON.

The success in introducing queens is due more to the method than what is sometimes termed "luck." I have tried nearly every plan, and long since adopted the following one:

Remove the old queen from the hive you wish to re-queen, and place the wire cage containing the queen between 2 combs of sealed honey. If the cage is too thick, cut out a piece of comb large enough to receive the cage and place her gently into the hive. If she is a fertile queen there are always some bees, like the good Samaritan, who will feed and care for her. Leave her in the cage for 36 hours, and on the third morning carefully examine every frame, destroy any and all queen cells that may be started, and gently lift the queen out on a frame of brood. If she is received friendly the bees will surround, feed and caress her. Should any worker show signs of stinging, it will be better to recage her until the next day, when all will be right.

The disposition of the honey bee very much resembles that of the human family; some are always peevish and fretful, while others are gentle and kind; some colonies will receive a strange queen within an hour after the loss of their mother, and some colonies will never start a queen cell after their mother is removed, providing a fertile queen is immediately given to them; while other colonies show hatred toward their stepmother, and a constant desire to rear a new queen, by starting from 5 to 25 queen cells.

I have tried introducing queens by taking off all the bees from the combs and daubing the queen well with honey. I have had pretty good success, but have found some that had fallen a prey to the angry bees by their balling her. In this case it is sometimes difficult to rescue her. I have even known them not to kill her after giving her a severe hugging; her pitiful cry for mercy may have saved her. I have known them to hug a queen for a whole day and then receive her.

To get rid of fertile workers I give them a frame of brood containing, if possible, a few queen cells; it does not matter materially if they are sealed. I now remove from the stand one of the strongest colonies in the apiary, place the queenless colony in its place, and the strong one where the colony containing the fertile worker stood, and the job is complete. If sealed queen cells are given, under these circumstances, the bees seldom molest them; the colony, through surprise, are thrown into confusion, and are made sensible of their loss at once, and are more apt to recognize their want and appreciate their prosperity by receiving a new mother. It is seldom that bees destroy uncapped queen cells, on account of their strong attachment for their young.

The weather is very dry, a heavy drouth now prevails and the bees are doing nothing.

Rome, Ga., July 28, 1881.

Rural New Yorker.

Improving Honey Plants.

CH. DADANT.

The family of the Leguminosæ is one of the best for bees and for cattle. In this family we find the White Clover (Trifolium repens) of our pastures, the Melilot (Melilotus alba) whose name is derived from the Greek word *meli* (honey) and the Sainfoin (Onobrychis sativa), a plant which does not withstand our winters, but which, in France, gives the best honey and the best fodder.

Nearly related to the White Clover is the Red Clover (Trifolium arvense), which furnishes as great a quantity of honey as any one of the plants mentioned. Every country boy has sucked the honey from the tubes of its corollas; but few know that, if they had the chance of tasting this sweet, it was because bumble bees are nearly the only insects which can reach it, and bumble bees are too few in number to absorb such a large crop, which, therefore, remains unharvested, the corollas of Red Clover being too deep to allow the honey bees to suck it.

These corollas are only a very little too deep; for, during the drought of some summers, the flowers of the second crop, being a little shorter, the Italian bees find in them a good harvest; yet it is doubtful whether in the best circumstances their probosces are able to reach the bottoms of the tubes. Moreover, the honey of the main crop is always out of reach of the bees, and the aim of bee-keepers is to produce a kind of bees endowed with a tongue long enough to reach the bottom of the clover blossoms, or to produce a kind of red clover whose blossoms would be shorter or wider, so that bees could suck all the honey; or to attack the difficulty in both wsys at the same time. The work has already begun. Some bee-keepers try to produce bees endowed with longer probosces, and some others are selecting, in the fields, the plants whose corollas are wider or shorter than usual, in order to secure a sort in which they will be broader. But the task will be long, and we want help, if not in regard to bees, at least in regard to the selection and propagation of selected plants.

A seed grower who would take the thing in hand, planting selected clover with this object in view, if he succeeded, would be sure of a good sale of seeds at rumunerative prices; for every bee-keeper would try to have the new variety introduced to his neighbors. Of course, the end to be attained is, not to produce a short corolla by raising a diminutive plant, but to create a strong, vigorous kind, endowed with short or wide corollas, the sap of the plant being directed more towards the branches and the leaves than towards the corollas.

I dare to predict for the lucky man who would succeed in raising a clover with such fixed characteristics, large sales and big profits.

Hamilton, Ill.

For the American Bee Journal.

A Few Interesting Facts.

J. H. MARTIN.

It is a fact that many apiarists admire the use of sugar syrup upon which to winter bees, in preference to natural stores.

It is a fact that there are a dozen or more glucose factories in our country making tons of a deleterious substance used solely for adulteration.

It is a fact that our grocery-men are selling sugar and syrups adulterated with glucose, because it gives them greater profits.

It is a fact that the consumer finds his sugar entirely different from what it used to be. It has less sweetening power, and is hard and lumpy.

It is a fact that glucose will kill bees if you attempt to winter them upon it, either in liquid form mixed with honey, or sugar syrup, or in the form of candy.

It is a fact that bees will winter well upon good sealed honey.

From the above facts we have reached the conclusion that it is better to winter upon natural stores, than to run the risk of buying sugar, a portion of which is glucose.

Hartford, N. Y., Aug. 19, 1881.

For the American Bee Journal.

Origin of Sending Queens by Mail.

C. J. ROBINSON.

It appears that some of the enterprising queen breeders deem it very important that queen shipping cages have many distinct features to render them suitable in the highest degree. The essential features of such a cage are quite simple—only to afford bees the conditious requisite, as I learned from experience before any other party ever mailed a honey bee. My humble self has the credit of being the original shipper of queen bees by mail transit. It was from necessity that I devised the mode of transporting queens through the mails, and contrived a shipping cage.

In 1859, when the Italian bees were first imported, up to July, 1862, I was receiving queens from J. P. Mahan, of Philadelphia (the first successful importer of bees), and also from others, including Rev. L. L. Langstroth, who shipped by express. At that time no express office had been established at this point, and I was bothered to get packages from the office in due time. I wrote to Mr. Langstroth, asking his opinion on the feasibility of sending queens per mail. He answered, signifying that he deemed the plan impracticable. Still I was bent on trying the experiment, and caged a black queen in a package, which I addressed to Mr. Langstroth and mailed it. In due time the queen, with a few workers, arrived at Mr. Langstroth's post office all right. Then Mr. L. contrived a cage, in which he put a fine Italian queen, with a few workers, and mailed to my address. When the package came to hand the workers were all dead and the queen died soon after. I reported the arrival and ill success to Mr. L., who contrived a cage different from his first, and sent it with a queen to me by mail. His second attempt proved as successful as my first was. Such is the history of the origin of transporting queens through the medium of the post office department.

Richford, N. Y.

For the American Bee Journal.

Cyprian and Palestine Bees.

A. W. OSBORN.

The accompanying letter from Mr. G. M. Doolittle, whose judgment we respect, will, I think, be of general interest:

Borodino, N. Y., July 25, 1881.

As to Holy Land queens and bees I know nothing, but will say that I believe the U. S. would have been just as well off without them. You will see that as the Holy Land and Cyprians are so nearly like the Italians as to color, that should they prove inferior, they cannot be separated, as can the blacks and Italians. Let me prophesy: Five years from now, but few persons in the United States will be able to tell of what their stock consists; for just as soon as Palestine and Cyprian drones are plenty, who can tell by the workers or queens whether their queens have mated with an Italian, Cyprian or Palestine drone? Hence you will see, that should these last two prove inferior to the Italians, we are in a dilemma. I know the rush generally goes for something *new*, but I am content, at present, to let others try these bees.

G. M. Doolittle.

Thus far, I have not found the Holy Land bees superior to the Italians. I handled over 400 queens this summer, both Italian and Holy Land, and I watched them closely. Perhaps the Palestine bees are not suited to our dry seasons, and under the most favorable circumstances would make a better showing. With us the honey season is over. The yield has been very light, not more than 1 apiary in 10 that has taken any surplus. The remaining 9 will have to be fed, to keep the bees from starving. But we live and work on, cherishing the hope that next year will make up for this, and in fact, bee men have come to believe that it is impossible to obtain 2 good crops in succession.

I wish the best of success to all the bee-keepers of the East, and prosperity to the Bee Journal, which comes to us every week, filled with good things.

Los Angeles, Cal., Aug. 13, 1881.

For the American Bee Journal.

The Calendonian Apiarian Society.

J. D. HUTCHINSON.

This society held their 8th annual exhibition at Sterling, on July 26, and 3 following days, and as in former years under the patronage of the Highland and Agricultural Society of Scotland.

Owing to the very wet weather which we have experienced here all this summer, there was only a limited display of honey; but this was more than made up by the fine appearance of the "observatory hives," which, as usual, was a great attraction, the queen being eagerly sought after. In this department the competition is getting keener at every show. The first prize was awarded to Mr. D. Woods, of Benmore, whose hive was much noticed for its ingenuity and beauty. It is made to serve two purposes, that of an ordinary observatory hive, and is adapted for both summer and winter use. The frames, 4 in number, are arranged in 2 perpendicular rows, and above this is placed a number of small section boxes, which the bees fill with comb honey: just as if they were in an ordinary bee-frame hive. This hive can be all closed up in a few seconds, and the bees can be kept in it throughout the winter in perfect safety. The second prize was awarded to Mr. Young, of Perth, who exhibited an ordinary 6-bar Woodbury hive. Both these hives were well stocked with beautiful bees.

Great interest was also manifested in class 2, for the best colony of Cyprian, Ligurian, or any other foreign bees exhibited in an observatory hive. 1. James Johnstone, of Touch. 2. William Sword, of Falkirk. There was a large number of entries in the competition for the hives, but as there was nothing of any particular note, I need not trouble you to enumerate the awards.

In class 9, Mr. Johnstone carried off 1st honors with his samples of comb foundation, and wax in cakes of 2 lbs. each.

The competition in the honey classes were very few, and the only exhibits of any interest was a few magnificent Stewarton boxes from Ayrshire, and a number of small 1 and 2 lb. section boxes of fine comb honey. The fine display of run or extracted honey which is yearly seen at this show was greatly missed. Class 23, for the best liquor or wine made from honey. 1. D. Wood.

For the best cakes made with honey. 1. Wm. Sword. The above exhibits were very tasty, but oh! how quickly they did vanish. In the miscellaneous classes there was a good display of hives, supers, bee-furniture, bee-gear, honey extractors, etc.; and amongst the principle hive winners in this class were Messrs. Young, Wood, and Kinnear.

The driving competition for the Highland and Agricultural Society's silver medal, took place on the last day of the show, in the large manipulating tent belonging to the Bee Society. There was a large number of competitors, and after a very keen contest, the judges awarded the first prize to Mr. W. W. Young, who captured the queen in transit in 1½ minutes, and finished the driving of the bees in the same time. Miss Stewart, of Sterling, came second, and was awarded the society's own silver medal; she took 4 minutes to capture the queen, and other 3 to finish the driving. The judges were Messrs. Anderson and Muirhead. During the 4 days of the show, the weather was very showery, and at times rained very heavily; but the visitors seemed to enjoy themselves to the utmost extent. Altogether, the show was a great success, both fiancially, and otherwise, and much credit is due to the committee for the way in which the arrangements were carried through.

On the Thursday night, a large company of the principal bee-keepers attending the show, dined together in McAlpine's hotel. The party spent a very enjoyable evening, which was greatly enlivened by the songs and speeches of the various members.

For the American Bee Journal.

Another Way of Swindling, etc.

W. H. STOUT.

Parties in this vicinity have taken lessons in bee-keeping from a professional, who charges $5. for instructions, and gives the following receipt for feeding:

5 lbs. A sugar, 1 teaspoonful fine dairy salt, ¼ lb. essence of lemon, 1 knife-point full cream tartar, 3 pints of water, to which add ½ tea cup full of vinegar, if you wish comb built.

The following foi spring feeding:

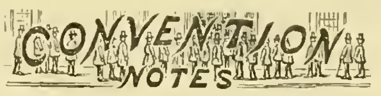
2 bushels of rye, 5 lbs. A sugar, 3 spoonfuls of dairy salt. I teaspoonful essence of lemon, ¼ spoonful of cream tartar.

This is, of course, a kind of private mixture, but as the Journal readers are entitled to all the valuable discoveries. I take the liberty to have you publish it, perhaps for the first time.

It is a little rough on foundation manufacturers, I know, but you see a little vinegar will save us all that expense. How the little fellows are to appropriate the rye does not appear. For the present we are satisfied with A sugar and water, and rye and oats ground together for spring feeding. The other articles we would prefer mixed with flour for cakes.

We are disappointed in our honey crop; so far obtained only about 300 lbs. in sections from 19 colonies in spring, and increased to 32, of which several are yet only nuclei. During June it was very wet, yet white clover was plentiful, but as our bees cannot swim, to gather the honey, we got very little of it. Since June we had it dry enough, so that corn and potatoes will not make ¼ of a crop, and the grass looks as if scorched. We sowed some early buck-wheat for bee-forage, but it yields scarcely any honey, and less grain. We also have some of later sowing which may do a little better, if we get rain soon. On the whole, we had a season of extremes, the coldest winter, the wettest spring, the hottest and dryest summer that is remembered—well, by the oldest inhabitant. We have a colony of bees now having 2 queens; the old queen has her wing clipped, and the bees swarmed out twice; each time we caught the queen, removed cells, and returned the colony; but they did not seem satisfied, but raised a young queen lately, and both were in the hive on one comb a few days ago. Another colony had a queen with defective wings; they also swarmed and returned twice, then superseded the old queen, and came out with 4 young queens at one time. We caught 3, gave them to nuclei, and left them I; since, they have done well. From these instances, we infer that bees are sometimes averse to having queens that cannot fly.

Pine Grove, Pa., Aug. 22, 1881.



The British Bee and Honey Show.

The seventh Exhibition of this Association in the gardens of the Royal Horticultural Society at South Kensington, London, has been rather conspicuous for the quantity and excellence of the honey than for evidences of progress among appliances. The total entries numbered 274, while the attendances have been on the whole satisfactory, and the interest in the subject evidently growing. In Class 2 the Carniolan bees were very distinct. This variety, though sombre in hue, should be encouraged, since they are good workers, not persistent swarmers, and extremely mild in temper. Observatory hives brought out one or two impracticable novelties, and we were glad to see that the mistake was not repeated of giving prizes where large flight space involved wholesale death to the bees, being a necessary part of the construction. Mr. Holland showed a pretty and ingenious observatory, which at present partly involves this indicated defeat, which without difficulty he could remedy. Mr. Scott showed a hive in which the frames fit together, but have glass between the combs. These can be independently lifted for observation. In our opinion the old form of observatory, in which the combs are visible constantly and without interference, yet remains to be excelled.

The display of honey has not hitherto been equalled. The total weight was nearly 3 tons, while the flatness, finish, and color of the sections seemed to leave but little room for progress in this direction. The extracted honey was bright with hardly an exception, and must constantly have sorely puzzled the Judges in making their awards. For the best exhibition from one apiary Mr. Thorn was to the front with a magnificent lot of 384½ lbs., which with his other entries brought his total up to 528 lbs., by far the largest amount of English honey yet staged by one exhibitor. Mr. Walton came second with 227 lbs., and Mr. Hooker third with 11 dozen 1 lb. sections, all of admirably even quality. The next class for supers not sections was on the whole poor, and calls for little remark. The glass supers, handsome but unsalable, are clearly giving way before the handy sections. The cost and risk of transit, without a chance of sale, will in the end banish these ornaments from our exhibition benches.

Class 13, best twenty-four 2 lb. sections.—Mr. Walton surpassed Mr. Thorn with boxes that can only be equalled. Miss Guyton and Mr. Thorn were second and third in a class in which to win is an event.

The silver medal for foundation was replaced at the desire of the Judges for 2 of bronze, one for Mr. Raitt for thick foundation, and the other to Mr. Abbott for thin. A silver medal was awarded to Mr. Abbott, Jr., who showed Faris' method for making foundation by dipping. In this he displayed considerable dexterity, nearly if not all the sheets being turned out perfect. Mr. Cowan again won in the class for extractors. The machine in principle is that of last year with an additional movement by which the combs can be more readily put in position. Mr. Abbott showed an expeditious way of sealing honey jars. These are first coated with wax on the lip; waxed paper is then, after filling, pressed upon the glass; and the two surfaces of wax unite, and a complete closure is effected.

The Baroness Burdett Coutts distributed the prizes on Thursday, July 28th. The Rev. H. R. Peel has sufficiently recovered from his severe illness to allow him, to the delight of all, to be present during a part of the time the Exhibition was open, Mr. T. W. Cowan kindly taking general oversight during the whole week.

☞ The bee-keepers of Ontairo will hold their annual convention Tuesday, Wednesday, and Thursday evenings, second week of the Industrial fair, 13th, 14th, 15 September, thus allowing those attending the convention to see the exhibition when it is at its best and also the convention, which promises to be of such importance that no bee-keeper can afford to miss it. Ladies are especially invited to attend. Notice as to place of meeting will be given in due time. D. A. Jones.

☞ The Southern California District Bee-Keepers' Association will hold its annual meeting in Los Angeles City, Sept. 8, 9, and 10, 1881. All persons interested in bees and honey are respectfully invited to attend.

J. E. Pleasants, *Pres.*

Anaheim, Cal.

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. Miller, M. D., *Pres.*

C. C. Coffinberry, *Sec.*

☞ The Eastern Michigan bee-keepers' Association will hold its fall meeting in Detroit, Oct. 4, in the Y. M. C. A. hall, at 10 o'clock a. m.

A. B. Weed, *Sec.*

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.

N. E. France. *Sec.*, Platteville, Wis.

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. Goodno. *Sec.*

SELECTIONS FROM OUR LETTER BOX

Thoroughwort.—I send by this mail a specimen of a weed that grows here in wet land, about waist-high, and which blooms from the middle of August until frost. It has a small white flower, on which the bees work steady all day long. What is it? Some here call it boneset; the tea of it will vomit a person quickly. My bees worked on it so industriously last fall, I thought maybe the impure, sour honey came from it that caused dysentery. It is very dry here now, and the bees that had plenty of stores the first of July have used at least one-half in rearing brood, and have gathered none since. I observed in last week's BEE JOURNAL, that men differ greatly on the value of the Cyprian bee. While Mr. Dadant condemns them, Mr. Muth and others praise them, so that beginners hardly know which to purchase. I have four as fine queens as I ever owned, of the Cyprian variety, bred from imported mothers; they breed faster, and their progeny are as gentle and easy to handle as Italians, and just as good workers. I prefer the Cyprians. Success to the BEE JOURNAL. D. S. KALLEY.
Mansfield, Ind., Aug. 23. 1881.

[The specimen sent is thoroughwort or boneset (*Eupatorium perfoliatum*), and is an excellent honey plant.—ED.]

Weather Scorching but Sweet Clover Yielding Honey.—I have read Dr. Keene's letter in a late Journal about Rocky Mountain bee plant and sweet clover. I have had 75 to 100 large plants of sweet clover in bloom in our garden this summer, the bloom upon which was immense. It bloomed in June, and when at its best, the bees were very busy upon it about a week, when to my great surprise, they abandoned it and let it alone for over a month, and I concluded it was worthless for this locality. Then came the drouth with no rain for over 3 weeks, when I was again surprised by seeing the bees resume work upon sweet clover, and during the hottest and dryest day we had, with the mercury 104 in the shade, and a dry, scorching wind from the southwest, they worked upon sweet clover from morning until night continuously. Of its value as a honey plant I cannot speak from experience, except that I am sure it cannot be so dry that sweet clover will not yield honey. D. P. NORTON.
Council Grove, Kan., Aug. 22, 1881.

Light Honey Crop.—The honey crop will be a very light one here this season, though early in the season it bid fair to be good. We obtained a little surplus honey from basswood bloom. Our bees have swarmed well this season; one colony gave me 3 large swarms in 4 days. It is so dry here now that there is nothing for bees to work on. If it rains, which it has not done in 3 weeks, I think it is too late for much forage. Everything looks as though it had been scorched. I wish all who have sent money to H. A. Burch & Co., for apiarian supplies, or bees and queens, and have received no compensation for their money, in the last year, could be put in a list, so we could see how much money they have made out of bee-keepers. I will add my mite: In April last I sent $3.50 for a nucleus, but have no bees yet. They do not correspond any more; they say each will be served in turn. I think it is about time to class such men where they belong.
DAVID RICE, SR.
Richfield, Ill., Aug. 16, 1881.

Drouth in Texas.—We are suffering from a most protracted drouth. My bees have hardly gathered ⅛ of a crop. We are all somewhat discouraged. W. H. ANDREWS.
McKinney, Tex., Aug. 16, 1881.

The Docility of Cyprians.—While I have no experience with imported Cyprians, I introduced to my yard in June 2 home-bred queens of this strain, presumably fertilized with the Cyprian drone. I am glad to be able to concur in the testimony of Mr. Muth—that I find them not only handsome, but "as gentle as any to handle." I certainly think it would be well for us to go on with the infusion of this new blood, notwithstanding the exceptionable cases of wrathfulness reported by Mr. Dadant and others. I cannot believe that they will prove in the average more irrascible than the blacks, while any improvement that may result from the cross will not be at the expense of the beautiful marking of the Italians.
J. S. WOODBURN.
Livermore, Pa., Aug. 21, 1881.

Cellar Ventilation.—I have read in some of our bee publications that a cellar should have a ventilating tube enter it from below the frost line in the ground, and extending some distance to an opening. Will some one having such a ventilating tube give the size of orifice, and the length necessary to secure a uniform temperature during severe weather?
J. H. MARTIN.
Hartford, N. Y., Aug. 20, 1881.

Much Interested.—I am very much interested in anything touching bee culture; I therefore find the BEE JOURNAL exceedingly attlactive and instructive, and would not like to miss a number of it. G. E. T. KYBER.
Green Bay, Wis., Aug. 22, 1881.

100 lbs. per Colony.—In my report given on page 226, July 20, is a little mistake. I lost 31, or rather 32 colonies out of 87. I have now increased to 92, and am getting a fair surplus. I shall get considerable over 100 lbs. of box honey from each of several colonies in the spring. The honey crop in this part of Wisconsin is very light. The harvest, truly, has been great, but the laborers have been few.
B. T. DAVENPORT.
Auroraville, Wis., Aug. 22. 1881.

Another Swindler.—I have received the following letter:

"Please give me information, if you can, namely: Is there a National Bee Co., if so do they establish agents to sell their goods? Is there a patented bee hive called Kidder hive? A man called himself Kirk Kidder, Jr., selling territory to use this patented hive. Was he a bogus or a genuine representive of the Co.? He said you was their agent at Cincinnati, O.—C. HAUCKE.—Greenup, Ky., Aug 20, 1881."

There is a fellow by the name of Kidder, I believe Kirk Kidder, Jr., who makes himself unpleasant, and whom I can prove to be an impostor and a humbug, by a number of letters on hand. As he is using my name in his swindling concern, I am obliged to speak in plain language, as my time is taxed answering letters in regard to that man, a little more than I can stand. The BEE JOURNAL will please publish Mr. Haucke's letter of inquiry which I enclose, and my answer, as follows:

MR. HAUCKE:—Your favor at hand, asking me if there is a National Bee Co., and a patented Kidder bee hive. You say also that I am the agent of that company, in Cincinnati, as stated by Kirk Kidder, Jr. To this I reply that a National Bee Co. may exist in the brains of your Mr. Kidder, but that it does not amount to a row of pins to the rest of the world, just like the patent on his bee hive; there is no such patent, and he cannot make you pay anything. If he tells you I am the agent of anybody, he tells you a lie, and you had best treat that humbug as he deserves, i. e., "boot him out doors." I have had so many letters in regard to that fellow that I intend to use plain language in regard to him, especially since he is using my name in his nefarious business. To other parties he has stated that a suit against me for infringing on his patent is pending in the United States court. C. F. MUTH.
Cincinnati, O., Aug. 24, 1881.

[We have occasion to know that this man "Kidder," is a swindler. He has troubled us the same way. —ED.]

Distance Between Frames.—In Prof. Cook's "Manual," page 136, eighth line from the top, in his instructions about the distance frames should be from each other, he says "¼ of an inch, though a slight variation either way does no harm." Again, on the same page, 2 or 3 lines below, he says "some men prefer nails or wire staples which project just ¼ of an inch," etc. I would like to have him tell us how he handles frames and keeps bees in his hives with only ¼ inch space between the combs. I find, in practice, that not less than ½ inch will do, and I find 9 frames in the Langstroth hive do better than 10. I have used only 9 for 2 years past, and like it much better, but only ¼ inch is, I think, a very great error, and will make bad work for beginners, for I know in practice it will not work with me, and I would like very much to have Prof. Cook tell us, through the BEE JOURNAL, how he manages his hives, when full of bees, with only ¼ inch space or less between the frames.
S. H. HUTCHINSON.
Mechanics Falls, Me., Aug. 8, 1881.

[I have to thank S. H. Hutchinson for calling my attention to the above mistake in the Manual. I noticed it in the second edition (it was not in the first), and intended to correct it, but, by some oversight the correction was not made. I regret the error, as errors are to be deprecated at all times and in all places. Yet the above is not serious, as the advice can hardly be followed. I always have given 1½ inches to each frame, or 12 frames to a hive 18 inches long.—A. J. COOK.]

The Bee Moth.—I see in the report of the proceedings of the convention of the Barren Co., Ky., society, that among other subjects submitted to that body for discussion, was, "Can we manage bees so that the moth worm will not destroy them?" The answer to that question might have been made up of one word of 2 letters. The "cattle men" of west Texas met in convention, at Fort Worth, in this State, one day last May. Now, had the question, "Can we manage *cattle* so that the buzzards will not destroy them?" been submitted to that body for its decision, the same answer of one word of 2 letters would have been literally correct, and for the same reason. My object is to draw out a discussion upon the (among bee-keepers) "king of terrors," the greatly misunderstood, and comparatively harmless little, so called, bee moth. Here in the south a great cloud of ignorance on the moth question hangs over us like a hideous nightmare, and prevents thousands from keeping bees, and worst of all, enables ignorant, or unscrupulous, moth-trap venders to impose on our harmless and confiding people. W. H. ANDREWS.
McKinney, Texas, Aug. 22, 1881.

My Report.—Last spring I brought with me from the Eastern part of the state 12 colonies of bees; 7 of them had scarcely the strength of good nuclei prior to May 1st. Being well through with their stores, 30 lbs. of sugar was made into syrup, and fed to them in April and early May, during which time also the colonies were equalized—so far, at least, as enabled me to utilize to the full the laying capacities of the queens. As their summer's work, I am able to report 1,165 lbs. of honey, mostly extracted, and 27 swarms. Counting nuclei, my number to-day is 49; but they occupy only 39 stands, and it is to this number I expect to reduce my colonies after the present batch of queens is disposed of. As many have quite a surplus of honey on them yet, and as all are still storing slowly from the buckwheat and fall flowers, I am not troubled with visions of having to feed to any extent, to enter them "in good condition" for winter. But should the surplus of my honey gatherers not prove sufficient for the lack of my queen rearers? I have still some $30 proceeds of queens already sold, and more to come with which to buy a little sugar. Of the 10 colonies devoted to the extractor, 2 gave me 193 and one 184 lbs. of honey, and 3 swarms respectively. The 2 at the other end of the class gave me 109 and 78 lbs. of honey and one swarm each. The credit of this season's handsome yield (the best in my 10 years of bee-culture), I would gratefully and humbly accord as follows: 1st, Providence; 2, Italian bees; 3, plenty of empty comb, and 4, management.
J. S. WOODBURN.
Livermore, Pa.

Sections with Wood instead of Glass.—I send a section box protected by wood sides which are fastened to the section by what I call a "hinged label." I commenced the use of wood sides instead of glass some 3 years since, and fastened them to the section by a light rubber band, till this season, when I happened to devise this label. The rubber band did very well, but I wanted something to cover up the little stain of propolis, sometimes left on top of the section, and also to prevent the end of the wood-side slipping down into the honey, which sometimes happened when the sections were carelessly handled. This the "hinge label" does very effectually, and also gives the section a neat appearance. I fasten them on with white glue, the same as I use for glassing, only thinner. Our city grocers liked the wood sides fastened by rubber bands, far better than glass, as it is so much less liable to break up by their delivery teams, and now they like the "hinge labels" best of all. To examine the honey, simply raise the lid or side from the bottom, the label acting as the hinge. Of course I always glass a few sections for the grocers to put upon counters, in show windows, etc., but they all say, "give us the wood sides for delivery." How do you like them? GEO. I. GOODHUE.
Danville, P. Q., Can., Aug. 22, 1881.

[This is a very clean and nice section, and where it is not desired to glass the sections, and some cover or protection is wanted other than the crate, these "wood sides" are very convenient.—ED.]

My Hopes almost Blasted.—My 13 colonies of bees wintered without loss on summer stands, only I lost 2 old queens in February. I put the brood in with others, and then I had 11, in good condition; but the quantity of bees in each hive was small (about 2 quarts); they multiplied fast, and in the latter part of May and June, by natural swarming, they increased to 21 colonies, and to-day every hive is full of bees, comb, brood in every stage, and honey. I do not know how much. For 5 weeks we have had no rain, and with hot and dry weather; a great portion of the time, it was 100° to 110° in the shade in my apiary, and on the 12th inst., it was 112° in the shade, and 150° in the sun, at the entrance of hive No. 7, at noon. It seems to me that the "blessed bees" are now living on bread and water, although I have 3 acres of silver-hull, golden rod, figwort, etc. I have obtained about 100 lbs. from white clover. I sell all my honey at 30 cts. per lb. Famine is staring my bees squarely in the face. If it rains in a few days, they will be all right. The wheat crop is light; corn is tolerably good; vegetables are very scarce, and honey is a failure. R. M. OSBORN.
Kane, Ill., Aug. 22, 1881.

SPECIAL NOTICES.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

◆

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆

☞ Articles for publication must be written on a separate piece of paper from items of business.

◆

Photographs of prominent Apiarists —Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

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☞ When changing a postoffice address, mention the *old* as well as the new address.

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☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

The Beauty and Color of the hair may be safely regained by using Parker's Hair Balsam, which is much admired for its perfume, cleanliness, and dandruff eradicating properties. 31w4

◆

Nearly all the ills that Afflict Mankind can be prevented and cured by keeping the stomach, liver and kidneys in perfect working order. There is no medicine known that will do this as quickly and surely, without interfering with your duties, as Parker's Ginger Tonic. See advertisement. 31w4

◆

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

◆

Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. It will pay to devote a few hours to the BEE JOURNAL.

◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

◆

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—New honey is coming in freely and the demand is good.

We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 7@9c.

BEESWAX—Prime quality, 18@20c.

AL. H. NEWMAN, 972 W. Madison St.
Chicago, Aug. 20, 1881.

NEW YORK.

HONEY—There is no settled market price yet for honey, as there is none selling.

We quote as follows: White comb, in small boxes, 15@18c; dark, in small boxes, 12@15c. Extracted, white, 10@12c.; dark, 7@9c.

BEESWAX.—Prime quality, 22@24c.

THORN & Co., 11 and 13 Devoe avenue.
New York, Aug. 18, 1881.

CINCINNATI.

HONEY.—Last week I paid King Cramer 17c. per lb. for a lot of about 2,000 lbs. It was in the Muth sections, 5¼x6, without separators. Every comb is perfect, which speaks well for the producer. If Mr. Cramer did not succeed, this season, in establishing rules for queen fertilization, he succeeded admirably in getting one of the finest lots of comb honey in the country. Extracted honey is just commencing to be in good demand.

I quote: Good comb honey, in sections, is worth 14@16c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.
Cincinnati, Aug. 13, 1881.

ST. LOUIS.

HONEY.—An occasional sale at quotations, but demand very light and prices easy.

We quote: New, strained, 7@8c.; extracted, in cans, 9@10c.; comb, 13@14c.

BEESWAX—Prime yellow sells at 20@21c.

R. C. GREER & CO., 117 N. Main Street.
St. Louis, Mo., Aug. 27, 1881.

BOSTON.

HONEY—The prices of honey are not regularly quoted in our papers here. We quote: Honey in 1 pound sections retails at 25c.; in 2 pound sections, 20c.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street,
Boston, Mass., Aug. 17, 1881.

CLEVELAND.

HONEY—Comb honey continues in good demand at 19@20c. for 1 lb. white and 18@19c. for 2 lb. sections. Glassed sections about 3c. per lb. less. Extracted honey, in 30 to 50 lb. cans, 10@12c.

BEESWAX—20c.

A. C. KENDEL, 115 Ontario Street.
Cleveland, O., Aug. 25, 1881.

SAN FRANCISCO.

HONEY—An invoice of 267 cases and 7 bbls. was forwarded this week to Liverpool, shipped by a packing firm. The market is quiet, but holders are not disposed to shade rates.

We quote white comb, 14@16c.; dark to good, 11@13c. Extracted, choice to extra white, 9@10½c.; dark and candied, 7@8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., Aug. 13, 1881.

BALTIMORE.

HONEY.—Both the supply and demand are too meager to report.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 22c.; grease wax, 12@13c.—*Baltimore Market Journal.*

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept. 27—Eastern N. Y. Union, Knowersville, N. Y.
N. D. West, Sec. Middleburg, N. Y.
Oct. 4—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
6—Union Kentucky, at Shelbyville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
5-7—National, at Lexington, Ky.
Dr. E. Parmly, Sec., New York City.
12—Kentucky State, at Louisville, Ky.
11, 12—Northern Michigan, at Maple Rapids.
O. R. Goodno, Sec., Carson City, Mich.
11, 12—Northeastern Wis., at Pewaukee, Wis.
Frances Dunham, Sec., DePere, Wis.
12—Central Ky., in Exp. B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
25, 26—Northwestern District, at Chicago, Ill.
C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.
1882.
Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May ——Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

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35w1t Wenham, Mass.

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These Pails have a full cover, and are excellent for marketing Candied Honey. The gallon and half gallon pails have a bail or handle, the quarts and pints have none.

Assorted samples of the four sizes, put inside one another as a nest, price 50 cents. These pails are very useful for many other purposes, after being emptied of the honey by consumers. The following are the prices:

				Per Doz.	Per 100
Gallon, holding	10 lbs.	of	honey....	$1.80....	$12.00
Half Gallon, "	5	"	"	1.50....	9.00
Quart, "	2½	"	" ...	1.20....	7.00
Pint, "	1¼	"	"	.75....	4.00

ALFRED H. NEWMAN,
972 West Madison Street, Chicago, Ill.

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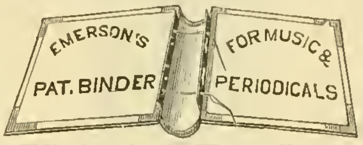

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If you are wasting away with Consumption, Dissipation or any weakness, you will find Parker's Ginger Tonic the greatest Blood Fertilizer and the **Best Health & Strength Restorer you Can Use** and far superior to Bitters and other Tonics, as it builds up the system, but never intoxicates. 50 ct. and $1 sizes. Hiscox & Co., Chemists, N. Y.

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Removes Dandruff
Prevents Baldness
Restores Color

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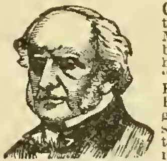

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65 *ENGRAVINGS*

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A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.

Price 25 cents.—Sent on receipt of price, by Address,

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The Bee-Keeper's Guide;

OR,

MANUAL OF THE APIARY,

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Of Lansing, Professor of Entomology in the
State Agricultural College of Michigan.

320 Pages; 133 Fine Illustrations.

This is a new edition of Prof. Cook's Manual of the Apiary, enlarged and elegantly illustrated. The first edition of 3,000 copies was exhausted in about 18 months—a sale unprecedented in the annals of bee-culture. This new work has been produced with great care, patient study and persistent research. It comprises a full delineation of the anatomy and physiology of the honey bee, illustrated with many costly wood engravings—the products of the Honey Bee; the races of bees; full descriptions of honey-producing plants, trees, shrubs, etc., splendidly illustrated—and last, though not least, detailed instructions for the various manipulations necessary in the apiary.

This work is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. It is fully "up with the times" on every conceivable subject that can interest the apiarist. It is not only instructive, but intensely interesting and thoroughly practical.

Read the following opinions of the Book;

All agree that it is the work of a master and of real value.—*L'Apiculture*, Paris.

I think Cook's Manual is the best of our American works.—LEWIS T. COLBY.

It appears to have cut the ground from under future book-makers.—*British Bee Journal.*

Prof. Cook's valuable Manual has been my constant guide in my operations and successful management of the apiary.—J. P. WEST.

I have derived more practical knowledge from Prof. Cook's New Manual of the Apiary than from any other book.—E. H. WYNKOOP.

This book is just what everyone interested in bees ought to have, and which, no one who obtains it, will ever regret having purchased.—*Mich. Far.*

Is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without.—*Nebraska Farmer.*

To all who wish to engage in bee-culture, a manual is a necessity. Prof. Cook's Manual is an exhaustive work.—*Herald*, Monticello, Ill.

With Cook's Manual I am more than pleased. It is fully up with the times in every particular. The richest reward awaits its author.—A. E. WENZEL.

My success has been so great as to almost astonish myself, and much of it is due to the clear, disinterested information contained in Cook's Manual.—WM. VAN ANTWERP, M. D.

It is the latest book on the bee, and treats of both the bee and hives, with their implements. It is of value to all bee-raisers.—*Ky. Live Stock Record.*

It is a credit to the author as well the publisher. I have never yet met with a work, either French or foreign, which I like so much.—L'ABBE DU BOIS, editor of the *Bulletin D' Apiculteur*, France.

It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat*, Pulaski, N. Y.

We have perused with great pleasure this *vade mecum* of the bee-keeper. It is replete with the best information on everything belonging to apiculture. To all taking an interest in this subject, we say, obtain this valuable work, read it carefully and practice as advised.—*Agriculturist*, Quebec.

This book is pronounced by the press and leading bee-men to be the most complete and practical treatise on bee-culture in Europe or America; a scientific work on modern bee management that every experienced bee-man will welcome, and it is essential to every amateur in bee-culture. It is handsomely printed, neatly bound, and is a credit to the West.—*Western Agriculturist.*

This work is undoubtedly the most complete manual for the instruction of bee-keepers which has ever been published. It gives a full explanation regarding the care and management of the apiary. There is no subject relating to the culture of bees left untouched, and in the compilation of the work Prof. Cook has had the advantage of all the previous knowlede of apiarists, which he uses admirably to promote and make popular this most interesting of all occupations.—*American Inventor*

It may safely be pronounced the most complete and comprehensive of the several manuals which have recently appeared on the subject of bees and their handling in apiaries. The studies of the structure of the bee, the different varieties, the various bee products, and following these the points of management, extending to the smallest details, are all of high and practical value. Prof. Cook has presented the latest phases of progressive bee-keeping, and writes of the themes discussed in the light of his own experience.—*Pacific Rural.*

Of the many excellent works which we have examined on bee-culture, we consider Prof. Cook's the most valuable for the study of those who contemplate going into the business or are already keeping bees. If thoroughly studied, and its teachings conformed to, by the apiarist, who exercises a reasonable degree of common sense, he or she cannot fail to achieve at least a reasonable degree of success. The author addresses himself to the work with a degree of enthusiasm which carries the reader with him to the end.—*Kansas Farmer.*

Cook's Manual of the Apiary holds in America the same high rank, that is accorded in Germany to the book of which Dzierzon is the author; the only difference being that Prof. Cook's Manual combines the profoundness of the German pastor with the superiority of the practical American. He refers in several instances to Darwin; and does not belong to that class which hates everything that is foreign, for he speaks of German naturalists with great reverence. *German Freidenker*, Milwaukee, Wis.

PRICE—Bound in cloth, **$1.25**; in paper cover, **$1.00**, by mail prepaid. Published by

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974 West Madison Street, CHICAGO, ILL.

THE AMERICAN BEE JOURNAL

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☞ We received, too late for insertion in the programme of the National Convention, information that Mr. W. T. Stewart, of Eminence, Ky., will furnish an article on "The Cultivation of Honey-Producing Plants."

☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on page 15. Every bee-keeper should carefully examine this JOURNAL.

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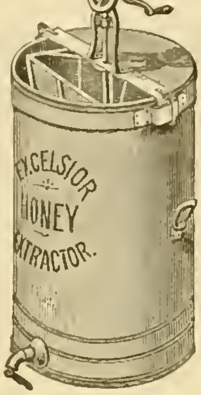
Des Moines, Iowa, July 30, 1881.



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Mortonsville, Woodford Co., Ky.
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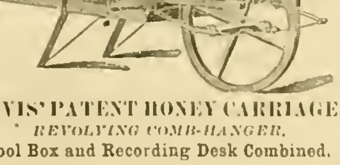
11w26tx **N. H. COLCOCK,** Welland, Ont.



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Langstroth on the Hive and Honey Bee. - This is a standard scientific work. Price, **$2.**

Blessed Bees, by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, **$1.00.**

Bees and Honey; or, successful management of the Apiary, by Thomas G. Newman.—This embraces the following subjects: Location of the Apiary—Honey Plants—Queen Rearing—Feeding—Swarming—Dividing—Transferring—Italianizing—Introducing Queens—Extracting—Quieting and Handling Bees—Marketing Honey, etc. It is published in **English and German.**—Price for either edition, **40 cents,** postpaid.

Dzierzon Theory;—presents the fundamental principles of bee-culture, and furnishes the facts and arguments to demonstrate them. **15 c.**

Honey, as Food and Medicine, by Thomas G. Newman.—This pamphlet discourses upon the Ancient History of Bees and Honey; the nature, quality, sources, and preparation of Honey for the Market; Honey as food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, etc; and Honey as Medicine with many useful Recipes. It is intended for consumers, and should be scattered by thousands, creating a demand for honey everywhere. Published in **English and German.** Price for either edition, **6c.**; per dozen, **50c.**

Wintering Bees.—This contains the Prize Essays on this subject, read before the Centennial Bee-Keepers' Association. The Prize—$25 in gold—was awarded to Prof. Cook's Essay, which is here given in full. Price, **10c.**

The Hive I Use—Being a description of the hive used by G. M. Doolittle. Price, **5c.**

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DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., SEPTEMBER 7, 1881. No. 36.

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Free of postage in the United States or Canada.

Postage to Europe 50 cents extra.

Entered at Chicago post office as second class matter.

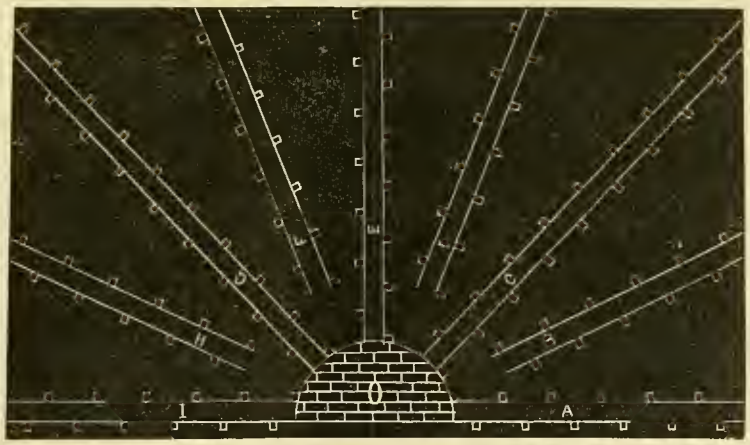
The Honey Season of 1881.

It is, perhaps, rather early in the season to conjecture with any degree of certainty as to the honey-harvest for 1881; but enough is already known to justify the assertion that the yield, generally, has been very satisfactory. In a territory so vast as that of North America, embracing, as it does, every variety of soil and every degree of climate, it cannot be anticipated that each portion will be equally productive even in the most favorable season, nor will all parts be unproductive alike in times of general failure. These remarks are quite as applicable to the production of honey as any other commodity, and the present season has very forcibly illustrated it.

From all portions of the country we learn that the white clover bloom was unusually profuse and the linden was much above the average, while less important honey blossoms were quite as satisfactory; but owing to the decimation of the bees during the past winter and spring, but few apiarists were prepared to take advantage of the bloom in time to secure the best results. Those, however, who were in condition to make the most of it, are more than jubilant over their yield.

The summer harvest, however, has not been so generally satisfactory. In several of the Southern, and particularly in the Central States, a drouth of long duration set in about the middle of June, which continued in many States till the last week in July, and entirely suspended the honey flow. Later, the drouth struck Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Missouri, and districts in other States. This, to a large extent, will be detrimental to the fall honey yield, and yet, with immediate general rains and tardy frosts, we anticipate a more than average fall honey crop.

The increase in bees has been remarkable everywhere, both by natural swarming and by division—some having increased tenfold. Bee-keepers are almost unanimons in reporting colonies in strong and excellent condition, and in most cases with plenty of honey for winter; therefore, whatever there may be to gather in the fall bloom, will be harvested to the best advantage, and may yet be a considerable addition to the season's report.



Dr. L. C. Whiting's Plan for an Apiary.

As we advised our readers in the early portion of the season, prices for honey are good, and the tendency is upward. This is not the result of a short crop, for the crop is not short, but is fully up to the average; nor is it the natural sequence of a partial failure in the California yield. It is the result of an increased demand for *good* honey at home and abroad. No longer does prime honey beg a market, but is eagerly sought for, and finds a ready sale. Every price current in each considerable mart gives quotations, and nearly all the metropolitan dailies publish prices in their market reports. That these prices fluctuate and vary greatly with each other cannot be attributed to the absence of a demand, nor is it the fault of the middle-men or jobbers; these men, with an eye to business, will drive the most advantageous bargains. It is mainly attributable to a nervous anxiety on the part of producers to sell.

Notwithstanding the disasters of the past winter, bee-keepers in general have occasion to congratulate themselves on the results of the year's work. Where cold, rigorous winter killed the bees, there also did it destroy cattle, sheep and hogs, or consume nearly their value in feed to carry them through; where storms and hurricanes have wrought to their disadvantage, other descriptions of property have been flooded or ruined, and even human life has not been exempt from destruction; where drouth has interrupted the bees in their labors, fruit has been shriveled where it hung, corn parched in the fields, cotton shrunken and burned before matured, and general, pinching want stares the hard-working husbandman in the face. All in all, bee-keepers in general have less cause for despondent gloom than any other chosen occupation in America, involving a relative amount of capital.

* * *

Unfortunate.—We are in receipt of the following note from Mr. J. T. Wilson, dated Mortonsville, Ky., Aug. 30, 1881:

I received an injury last Saturday morning from the falling of an old shed, and for twenty-four hours did not know anything that transpired. The doctor thinks I had better keep out of the sunshine for a while, so if my patrons do not receive their queens this week, they will know the cause.

Our readers will join with us in sympathy for Mr. Wilson in his misfortune.

Plan for an Apiary.

Dr. L. C. Whiting has furnished us with the following description of a plan for an apiary, which will be found delineated in the engraving on this page:

After looking at the engraving, in No. 27, of Mr. Root's picturesque apiary, I thought of sending you a draught of a plan adopted by me some years since, which for some reasons gave me more satisfaction than any other.

It will be seen from the accompanying engraving that the hives radiate from a central point, in double rows, about 5 feet apart. These spaces are for passage-ways, and from which the bees are manipulated. The front (or entrance) faces out from this passage-way.

The point gained by this arrangement is the facility of seeing any unusual action among the bees. I could stand at the hub and glance down each row and see if any robber bees were threatening any colony, and in swarming time I could see from which colony the bees issued, with the least expense of labor or time.

When I commenced bee-keeping I thought it necessary to have the hives 5 or 6 feet apart each way, but want of room caused them to be placed nearer, and I now find one foot apart in the rows to give ample room.

East Saginaw, Mich., July 20, 1881.

* * *

☞ Mr. Henry Jones, of Chesaning, Mich., presented a box of honey to the editor of the Oakley *Cyclone*, who "noticed" the honey in the following words:

Mr. Jones, of Chesaning, will please except our thanks for a cap of that superb honey of his, which he kindly presented to us, and which was pronounced immense by all the young *Cyclones* in the family, which includes one little zephyr, and several small whirlwinds.

That little local notice will do much to assist Mr. Jones to sell his honey at home, and thus create a local market for years to come. We cannot give better advice than to keep the local market well supplied—send up only the overplus to the large marts.

* * *

☞ A commercial exchange says that the American honey trade with Great Britain is growing rapidly. A recent English order calls for 58,000 one-pound cans of pure extracted honey.

* * *

☞ Mr. Fisk Bangs, of South Haven, Mich., who resides in the great fruit belt along the lake, gives the dispiriting information of the "almost total failure of the peach crop. Apples, too, except close to the lake where he lives, are reported almost *nil.*"

The Old, Old Story.

We cannot resist the temptation to publish the following:

> South Haven, Mich., Aug. 30, 1881.
>
> We regret that the management of both the AMERICAN BEE JOURNAL and *Gleanings* should have resolved upon such action as they have, resulting in our financial embarrassment. Presume it's no use for us to repeat that we are paying fast as we can.
>
> H. A. BURCH & CO.

We can assure Mr. Burch that we did not "resolve upon such action" until the complaints against him became so numerous that we could no longer doubt much of his business was tinctured with "crookedness" (to put it mildly). For nearly two years we have heard more or less of complaint, and have remonstrated with him for his lack of promptness; but more recently we have been much censured for carrying his name in our advertising columns, which we should not have done had we not supposed he was at least honest; but when statements of his derelictions were received, subscribed and sworn to by numerous victims, "the management" could not do otherwise than "resolve upon such action." Mr. Burch had passed that "point beyond which forbearance ceases to be a virtue:"

The assurance of Mr. Burch, that "we are paying fast as we can" may be gratifying to some, but there are many, probably, who look upon orders on the "management" of *Gleanings*, by Mr. Burch, for the repayment of money sent him for bees and supplies, in about the same light that Dr. E. E. Worthen does.

The South Haven, Mich., *Sentinel*, of Aug. 27, gives the promised particulars of the case where Mr. Burch has had money for goods over two years, and yet the order is *unfilled*, and adds:

> With such charges staring him in the face, we should like to know how much cheek it required for Master Burch to write to the BEE JOURNAL, "If you feel like saying in the BEE JOURNAL that *you regret* our being so much behind, *but are assured that we will make all satisfactory* as far as lies in our power, *we shall feel grateful.*"

* * *

Another Dishonest Dealer.—In the September number of *Gleanings*, we find the following allusions to another of those swindlers who would bring disgrace upon any respectable calling they might adopt:

> Lebanon, Mo., Aug. 15, 1881.
>
> I drew on G. W. Marshall for the pay for his advertisement, and he repudiated it, and we drop his card; and if any one has lost money by reason of *his ad.* in our *Journal*, we are ready to make it good. E. M. HARRISON.
>
> [That is business, friend Harrison, and here is our hand on it. Let us suffer long, and be kind, but when a man repudiates his honest debts, he should be held up as a warning.]

And yet, under the editorial head of the same paper whose publisher condemns this G. W. Marshall, we find him accredited, as late as the August number, with being its regular subscription agent, and he has been so announced during the whole season. We learned years ago, through business transactions with him, that this man Marshall was dishonest, but we do not propose to admit a *particeps criminis* by assuming any of his obligations, or refunding moneys he has swindled patrons out of.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Large Crop of Honey in Canada.—The Woodstock, Ontario, Canada, *Sentinel*, gives the following account of Mr. J. B. Hall's apiary and crop of honey for this year:

> In a very recent conversation with a gentleman who had been long and intimately connected with bee-keeping he declared that every township in Canada was annually losing $10,000 by failing to keep as many bees as would gather all its honey. Such a waste of our productive wealth is really startling, and it is satisfactory to know that it does not occur in or arround Woodstock. A visit to the apiary of Mr. J. B. Hall on Drew st., will convince anyone that Woodstock's honey is all collected. Mr. Hall has now no less than 250 thriving colonies of bees, and has this year obtained over 6,000 pounds of honey. He reports the year as a fairly good one, and seems highly pleased with the signal success that has attended him as a bee-keeper. A visit to his apiary on Wednesday proved both pleasant and instructive, and we recommend all who are interested in bee-keeping to go there too.

By the same paper we notice that Mr. Hall has taken unto himself a bride—Miss Mary Adams—and the BEE JOURNAL wishes that their *honey*-moon may be their *light* and *sweetness* all through life, and always be provided with a sufficient *store* of *bee-bread* for their numerous *brood*. Mr. Hall is to be congratulated upon the successful re-queening of his *chief hive*, after it had been queenless for two years.—It would have been an impossibility with bees.

* * *

Biographical.—The following is an extract of the biography of the late editor of the *Bienen Zeitung*, found in that paper of June 15th, for a translation of which Messrs. Greiner Bros. have our thanks:

> Herr Andreas Schmid, editor of the *Bienen Zeitung*, died in Eichstedt, May 2, after a long, suffering illness, in his 65th year.
>
> Not far from Regensburg, in the small village of Grunthar, Andreas Schmid was born, on Feb. 25, 1816. His parents, Andreas and Ursula, were in very moderate pecuniary circumstances, and the support of the family, consisting of 2 more brothers and 1 sister, caused them frequent denials of many necessaries of life. The fact, that a piece of wheat bread or an apple was considered a rare "holiday" treat, sufficiently illustrates their circumstances.
>
> When 6 years of age, he was sent to Irlbach to school; his chance for educational advantages was here anything but encouraging, for the teacher himself could neither read nor write. He soon distinguished himself above his schoolmates, which attracted the attention of the village parson. He was frequently invited to the parsonage, where he found occasion to add little by little to his education. He also made himself useful about the house and garden, wherever an opportunity was offered, but especially when this parson, who was a lover and keeper of bees, was engaged in handling the bees. Having a natural liking for these little insects, and being encouraged by the parson, he probably formed here the love for the calling he so faithfully pursued in after years. From his 13th year he went to high school, at Regensburg; his untiring perseverance in his studies, soon distinguished him here also, and the Government sent him, in 1836, for his final education to the capital, Munchen, and 1 year thereafter to the Teachers' Academy, in Eichstedt, as assistant principal. His labors in this position so occupied his time, that he was engaged from 5 o'clock in the morning until 10 at night, daily, leaving him only the hours of the night, Sundays and holidays to attend to his private affairs. The Government sent him again in 1853 to Munchen, to study chemistry, and in 1867 back to Eichstedt, as principal. The agricultural department of this institution, included apiculture in its studies, and Andreas Schmid found it necessary to fit himself theoretically and practically for its teachings. He purchased at once bees, which he placed in the garden of the Academy, and the students received, under his management, daily instructions in practical bee-keeping. Many of these students, possessing a natural taste for bee-keeping, aided in the advancement of the cause; in later years, when scattered as teachers over the country, they became distinguished bee-keepers, encouraged others in the pursuit, founded Bee-Keepers' Associations, etc. His example found many followers. His labors and zeal in advancing the cause are duly appreciated by all the German and Austrian bee-keeping fraternity, and he always lived as an unselfish, noble and conscientious friend and adviser in the memory of all that knew him.

* * *

Handling Bees without Smoke.—A correspondent in *Gleanings* remarks as follows about handling bees without smoke:

> "When we throw away fear entirely, I think smoke is of little or no use. I believe we can handle bees the year round, and do it with more satisfaction and better results by leaving smoke entirely out of the apiary. If instead of going to a hive, jerking the cap off, tearing off the quilt, and blowing in smoke to arouse the colony to a fighting pitch, we would be cautious, raising the cap easily (a cap that will not come off without jarring the hive has no business in the apiary) raise the quilt slowly, without jarring, avoid all quick motions laying the quilt to one side, and then pick up the frame, or, rather, commence picking it up, draw it out slowly. You will then have no trouble, even with black bees, running over their combs, scared to death. If they fly in your face and alight on your hands not one in twenty will sting you if you just pay no attention to them. I have discarded smoke almost entirely."

Why do you not discard the smoker entirely, if its use is unnecessary; why say "*almost* entirely?" With strong colonies of bees, during a brisk honey flow, the practical bee-keeper would make but little headway in manipulating his hives without smoke, unless provided with a skin as impenetrable as that of a rhinoceros and perfectly reckless regarding the number of bees killed.

* * *

Both Sides of the Question.—Mr. T C. Hagaman, of Benton Harbor, Mich., the great fruit region of the west, on the subject of bees injuring grapes, remarks as follows, in the Benton Harbor *Palladium*:

> As I have an interest on both sides of the question, I ought not to be prejudiced either way. Bees, no doubt draw the juice from raspberries and probably find the way through the skin of them without any assistance, as the juice will run from them as soon as picked, if fully ripe. I don't know that they injure the raspberry trade, unless it is by a little sharp practice upon the berry pickers occasionally. I have been watching them for some years to learn if they did injure fruit, and I could only find that after a small gray bird had put its bill through the grape the bee would then follow, as they say of the grave-stone peddler, after the doctor. I have frequently seen the birds on the grapes and driven them away, and found that where I saw the birds most frequently they were punctured upon the upper side of the cluster—2 or 3 holes, sometimes, in one grape, over $\frac{1}{8}$ of an inch across, with the skin of the grape lapping down inside, showing very plainly that the bee could not make such an incision with its small proboscis. The grapes in the lower portion of the cluster were almost invariably sound. The bees will not wait for an invitation to work upon fruit that has a broken skin. That is a part of its economy in providing for its future wants. Can any one blame it for this? I do not, and while I love good fruit I also love good honey and enjoy taking care of the bees, although they do play sharp on me sometimes. From my observations I have no reason to believe that the honey bee does in any way injure fruit, and I believe that this charge laid at the door of the honey bee is entirely without foundation.

* * *

Bees in Southern California.—We condense the following from an article which recently appeared in the San Francisco *Examiner*. Evidently the estimate of the honey crop this year is too large, as it will fall far below an average:

> The extent to which honey-making is carried on in the foothills of these extreme southern countries is something remarkable. Careful estimates, by responsible, well informed apiarists, place the number of hives being worked this season in the three counties of Los Angeles, San Diego and San Bernardino at nearly 200,000. There are at least 600 men wholly engaged in saving honey this season, and an average crop is assured. Last year the honey crop of San Diego county amounted to 1,291,800 pounds, and this year it will be larger. The total crop of Ventura, Los Angeles, San Diego and San Bernardino will not fall short if it does not exceed 3,000,000 lbs. this season—at least that is the opinion of well informed apiapists. The growth of this business has been very rapid, and may now be said to be in the zenith of prosperity; for, as the sage, sumac and other honey-producing flowers and shrubs decrease, so also will the number of bee colonies, now so numerous along the southern coast range.....In 1877 there were only 22 bee ranches in this southern region; now there are not less than 500. Five years ago the crop of honey was little in excess of home consumption; now several large ships can be loaded with the crop of a favorable year.
>
> The bee-keeper usually lives upon government land, not because he is unable to purchase what land he requires (which is a small amount) but because the wild sage, button sage, sumac and other honey flowers and shrubs are found growing luxuriantly where land considered worthless for grazing or cultivation is left unclaimed and undisturbed. In almost every accessible gulch, gully and valley where water can be had—and where the white sage blossoms, a bee ranch may be discovered. They are solitary places, veritable hermitages, where intruders from the outside world never find their way. Many of them are very beautiful little rural gems, set within a bower of roses and honeysuckles; some are merely a shed among rocks and brush, devoid of taste or comfort. These bee-raisers cultivate a sort of freemasonry among themselves, and aid and advise each other when called upon. They soon become accustomed to their solitude, and gradually accumulate a competence. There are a few exceptional cases where men have failed in bee-keeping down here, but they are few and not often found. No one should attempt to keep a bee ranch but a lover of solitude. It requires close care and attention, much patience, and little capital.

CORRESPONDENCE.

For the American Bee Journal.

Honey Producing Plants.

G. W. DEMAREE.

The value of the locust tree, commonly called black locust, as a honey producer, I think is not as generally known and appreciated, as the true merits of the tree deserves. The fact that Prof. Cook, in his Manual of the Apiary, merely gives this tree a passing notice, indicates that it either fails to give the best results in many parts of our vast country, or the tree is not as well known as it should be. The time of year in which it blooms nearly filling the interval between the late fruit bloom, and the white clover, makes it an exceedingly valuable auxiliary to the honey harvest in the middle states, if not elsewhere. It is a most profuse honey bearer, rivaling the famous linden in quality, and only inferior to the product of the latter in color. Locust honey cannot be said to be dark in color. It is of a rich pale-red color, when in a liquid state; but when in the shape of comb honey, its appearance, if removed from the hive when first finished, is but little inferior to our superior clover honey. It becomes exceeding thick, if left with the bees till the cells are thoroughly sealed, and its keeping qualities are therefore most excellent. We have used it on our table when first extracted, and after it was a year or two old. Many persons have partaken of it, all of whom have pronounced it extra good. The farmers in this part of the state are planting thousands of these trees, for the valuable timber they furnish for fence posts, telegraph poles, and for all purposes where durable timber is needed. The locust is a rapid grower, and is quite free from disease. I have seen it bloom the second year after transplanting. The trees are planted by the side of fences, in waste places, and on poor worn out lands. They may be propagated from the seeds, or by transplanting the young trees from 1 to 3 years old. If the ground is plowed in the spring, and the locust seeds planted on the hills with corn, or with other hill-crops, and cultivated the first year, the young trees will grow with great rapidity, even on very poor lands. In this way beautiful groves can be started, making the land, in process of time, very valuable, in locations where timber is an object, besides giving a perfect sea of bloom, ladened with precious nectar.

Every bee-man knows that a mere patch of bee-forage amounts to but little. If we are to have great results in the way of yield of honey, we must have a sea of bloom to obtain it from. Now that this new source of bee-pasturage is being so rapidly developed, all unconscious to the farmers who are planting and training these trees by the thousands for their valuable timber, some change must necessarily take place in the management of bees in the early spring. Our colonies must be made strong enough to harvest the tons of nectar secreted by the locust bloom in the short space of about 10 days. I had a few colonies last spring strong enough to teach me what may be gained from this source.

Commencing with empty hives, the queens were crowded out in 4 or 5 days, after the locust bloom opened. With strong colonies and plenty of empty combs, the amount of honey obtained would depend much on the good management of the apiarist. It is no easy matter to get bees strong enough by the 10th or 15th of May to give the best results. Some of the best colonies can be depended upon, but to get an entire apiary ready for strong quick work, is another matter. I know of but one way in which it can be accomplished, and that is to unite 2 or more colonies together. This I shall do hereafter without hesitation. Our honey seasons (even the best of them), are crowded into about 2 brief months of time, and if our bees must be built up during these precious days, the season is simply lost to the apiarist. What matters it, though we increase our colonies of bees, if they are never ready to reap the harvest.

Uniting bees in this climate gives them the swarming fever, most awfully bad; but even this is preferable to doing nothing.

Christiansburg, Ky.

* * *

For the American Bee Journal.

Pollen Detrimental to Wintering.

JAMES HEDDON.

> "In our common ignorance, all have an equal right to guess."

Some time ago I threw out the bacteria hypothesis, to be thought of and weighed in the scales of others' experience. But little has been said about it, and those who have written upon the subject have spent most of their force in trying to pin it to me, rather than to disprove the correctness of the theory.

You will see, by the records, that I never failed to assert that I "had not seen the animal," "did not know it existed," thought it might be "vegetable matter in the food" (I guessed in the honey), and now, after carefully examining a large number of dead colonies of my own and among my neighbors, I have settled down upon the belief, strong and positive, that the trouble is "vegetable matter in the food," not, however, in the honey, but in the cell-joining—that dysentery is caused by the consumption of bee-bread. I stand 10 to 1 on this question. I understand that when any animal is forced to consume of food several times its bulk and weight, and that, too, without any voiding of excreta, which is its natural habit during another season. that food must be of a highly refined and oxygenized nature, or disease will be the natural result.

I do not believe that bee-bread can be eaten during the period of confinement, and good health to the bees be the result. That they do try to use it in place of their natural food (honey) and that their failures are well known and fully realized by us, I am *sure*.

If but few agree with me, it is comforting to feel satisfied as to the cause, and that step having been taken up the hill of science, we can now prepare to search out the cheapest and most effectual method of prevention. I see that others have come to the same conclusion, and I have faith that the preventive is near at hand. The unaccountable phenomenon of Smith's bees all dying, while Jones', treated the same, and only three miles distant, all or nearly all live, shows the fallacy of looking for a cause in "cold," "confinement," "dampness," or any of the popular theories. None of the supposed causes will agree in the effects as we are forced to find them. I think the consumption-of-bread theory will.

There are more than a dozen different causes for the consumption of bread, which vary in the extreme in different winters, and in different localities only a short distance apart.

I will mention a few: First, I believe that the consumption or preference for honey, and not bread, during all that period when bees must void no excrement, except by sensible and insensible perspiration, is a fixed fact. The cause of dysentery is a variation from that rule, and the winter consumption of bread by the older bees; the attractive quality of the bread *vs.* the attractive quality of the honey; the closer proximity of bread, or more easy of access than honey (continued cold spells affect this largely); disposition to breed, in which case the bees being forced to handle the bread to feed the larvæ, eat of it more or less themselves. I have not found a dead colony, where there was not either plenty of bee-bread showing signs of late work with it, or brood in all stages, and generally both; but nearly always brood. I have found a few colonies that died late of starvation. With those that had accessible pollen, and tried that as a last resort, dysentery is to be seen in greater or less degree; but with many that had little or almost no pollen in the combs, all the bees and combs are as bright as any live colony. The sources, and consequent time of excessive fall pollen gathering in different localities only 2 or 3 miles apart, varies greatly, many times even more so than the gathering of honey.

Allowing this to be the cause, it is not the easiest matter in the world to foretell by examination, late in the season, whether colonies are going to die generally or not, because the pollen in the combs will not decide the future result; much depending upon its position in the combs at the dangerous time, and its attractiveness as compared with the honey as they may exist then, also much upon the frequency with which the bees can have a thorough voiding flight, and the excess of the cold, which governs to a large extent the amount of food consumed.

In a large majority of the cases where sugar syrup has been used, the reports have been favorable. I can only account for it on the supposition that the quantity and quality of the food was such that it was much preferred to the pollen, and exclusively used, and during the process of feeding much of the pollen that would have otherwise been left, was consumed or removed. In those cases where bees fed exclusively on sugar syrup have died with the disease, the pollen was eaten, sugar or no sugar.

The best method of prevention is what interests me most. I have given the subject but little thought as yet, owing to the summer's rush of work, and I do not think of any method sufficiently speedy, safe, cheap and sure to warrant its adoption in preference to taking the chances of success without cost or trouble.

It occurs to me that Mr. Grimm's plan of inserting two full frames of sealed honey (previously stored away for the purpose) in the center of the brood chamber is good, I would add the following precautions: have these two combs free, or nearly so, of pollen. Remove three combs containing the most pollen, leaving the space in the center of the hive, in which space insert the two honey frames. The extra space, as recommended by many, I think I would like very well, though I would not create it were I not going through a more important manipulation, in which case I could do so as well as not.

Another, and perhaps better plan, would be to remove the three frames containing pollen as before, and insert the same number of empty, straight, all-worker combs in their place, and feed them full of properly made sugar syrup. This should be done immediately after all gathering is over, and not later, and the feed should be given from the top, and directly over these three center combs, from a capacious feeder, or several feeders if smaller, to the end that the feed may be taken down and sealed up as soon as possible, and care should be taken against inciting the bees to robbing, which can be avoided. If part of the stores are not sealed no harm will result from it. Place two bent sticks over the tops and under the cloth or cushion thus, ⌒, to give the bees free access among the combs during the latter part of winter. This plan might pay even in large apiaries, especially if the colonies needed more stores than they had on hand.

I think even feeding light colonies with white sugar syrup is largely a preventive of dysentery. While honey of any color or flavor might be as good a food when eaten, still I suspect that sugar syrup has an extra attraction for the bees, that induces them to use it to the exclusion of pollen.

Some simpler, cheaper and less complicated method of causing the bees to abstain from eating pollen during all that period when they are obliged to semi-hibernate, is what I most desire.

I still believe that there is a difference in races and strains of bees in regard to their wintering—bees that breed earlier are in most danger. My colonies that were not packed wintered best, but were summered in another field. More than nine-tenths of the bees about *here* perished, while I saved over one-third of mine. Those in box hives died worse from some cause—probably chance.

Dowagiac, Mich.

* * *

For the American Bee Journal.

My Early Experience with Bees.

MRS. M. L. PARSONS.

We began the season of 1879 with 2 colonies of Italian bees, one of which was quite inferior. Our expenses, including cost of bees were $24.25. Recompense for our labor was 119 lbs., box honey, 60 lbs. in frames, and increased stock to 6 colonies; left them for winter 7 frames of good capped honey; put chaff cushion on inner side frames; filled covers with chaff, and packed a foot or more of straw around and over them. They took but one general flight, Jan. 4. We opened them April 1; they were bringing some pollen; inferior queen had but a handful of bees. One young queen, superseded by a laying worker, gave me much trouble; remaining 4 had brood in all stages, some capped; 1 colony killed the queen in April, so we had, May 1, 3 good colonies, and 2 queenless ones.

We then bought of the Misses Wilkins, 16 colonies of as beautiful Italians as one could wish. With 2 sample hives, frames, etc., they cost us, delivered at our station, ¾ of a mile from home, $149.74 cts. Our hives, frames, sections, section frames, shipping crates, separators, 4-frame Everett extractor, etc., brought our total expenses to $341.70, all but sections being a permanent investment. From the 19 colonies with which we began in 1880, we have 847¼ lbs. comb, 530 lbs. extracted honey, 11¾ lbs. wax, and have increased to 47 colonies, each of which made from 30 to 35 lbs. of good capped honey. When packed, Nov. 8, some queens too, had a little brood and some eggs. We bridged over entrances, packed 8 inches of hay in front, 12 or more at the back, and filled entire space between the hives (about 3 feet), with hay; have a duck sheet, woolen blanket and cotton quilt over frames. A good tight roof protects them all. Every queen has a name and number, my book giving credit to each the work of her own colony. Our dark bees gave best returns, "Nettie Carr" with 104 10-16 lbs. comb honey, besides some extracted. We get 16 cts. for comb, and 12½ for extracted honey, at Bay City. There was considerable buckwheat within reach of our bees, but either it secreted no honey, or the bees liked other plants better, for we have no dark honey, some of the last taken being as white as linden. We took every section from the hive as soon as finished; at close of the season extracted from unfinished sections. Use 5¼x6¼ sections; adopted Miss Wilkins style of hive, the 10-frame American, with Doolittle hive for surplus honey, enlarged to take American frame.

We have used the Van Deusen foundation, both in frames and sections, successfully. Used at the last sheets that nearly filled sections, and like those best. Shall try the Dunham foundation this season coming.

We lost some young queens, by their either not returning at all, or to wrong hive. I rescued 2 that were balled, and put them in the right hive; had 5 queens fly from frames while in my hand, 2 of which were laying, returned, but the 3 "foolish virgins" I never saw again. We united several colonies without loss, by use of atomizer, using oil of spruce cut with alcohol, and reduced with water, and sprayed all the bees and the hive well, and they gave us no trouble; placed a board in front of the entrance, but none returned to the old stand.

We give our bees the closest attention, having discovered they do not work for nothing and board themselves. Mr. Parsons and myself often being with them from 4:30 a. m. till dark. We are working to succeed. I see nothing but praise for "sweet clover," but from our experience with it east, I should as soon think of sowing Canada thistles; I think those who advocate its introduction can't be farmers.

Perry Station, Mich.

[We have heard but little complaint from practical farmers regarding melilot or sweet clover. It certainly is no worse to eradicate from the ground than ordinary weeds, and should not be compared at all with thistles, nor even with Spanish-needle, while its superiority as a honey plant should make it a great favorite with all keeping bees, if but a single colony.—Ed.]

For the American Bee Journal.

The Origin of Drones.

A. R. KOHNKE.

Mr. Robinson's hope, that some professor will deign to write an essay on this subject, will probably be in vain. Such a waste of paper and ink could hardly be asked of a person conversant with the subject, as all intelligent bee-keepers are. He may as well try to refute Euclid, and then ask some professor to write an essay to prove this illustrious mathematician correct. This article is not intended to gratify Mr. Robinson's hopes. To arrive at certain truths and facts through a course of reasoning, is, perhaps, beyond his ability; or he might understand them, if given by others, which he seems not to do. But I would like to ask him a few questions, namely:

1. Has Mr. R. a microscope of 1000 to 2000 diameter power? 2. Has he ever seen the sperma of any animal through such an instrument, especially that of a drone? 3. Has he ever dissected a worker or drone egg immediately after being laid? If he has not, he should do so, in order to obtain ocular proof of what has been known as a fact since 1855, instead of questioning the authority of men who have made entomology a life study. Referring to von Siebold Leuckart, and Donhoff, he says: "Those men fancied," when the "fancy" is exclusively his own. For it was von Siebold who, in 1855, proved by ocular demonstration, in von Berlepsch's own apiary, the theory advanced by Dzierzon. His assertion that von Berlepsch was in the dark is therefore without foundation.

Youngstown, O., Aug. 26, 1881.

For the American Bee Journal.

Are the New Races Superior?

A. F. MOON.

Candidly speaking, never since the publication of the American Bee Journal, has it stood so intrinsically high as it does at the present time, and it owes the position it now occupies in the nation to the untiring energy and unselfishness of its editor, and the intelligence of its numerous correspondents. What a change has come over its face!

I was forcibly struck in reading the editor's answer to Mr. Johnson, on page 252 of the Bee Journal for Aug. 10, regarding the best bees. In your free, outspoken answer, you have now placed the matter where the advocates of this class of bees will certainly be obliged to step to the front with the proof of their superior qualities, should they possess any; if they do not, the sooner they abandon them the better it will be for all parties concerned.

It appears from the accounts given of the Cyprian bee, even by some of its breeders, that it is a difficult matter to distinguish the Cyprian from the Italian. This being a fact, and the probability of the two races becoming mixed, any one can perceive the great injury that will be done to those breeding the Italians. I long ago had my fears aroused, and more especially after reading Mr. H. Alley's description of them in the Bee Journal, and concluded the less such stock bee-keepers had to contend with the better, if we expected to make any improvement in the Italians. Further, I cannot see how any queen-breeder, rearing all or any of these bees in the same apiary, or within two miles of each other, can keep any one strain pure. If fertilization could be controlled, then we could do better. From the description of these bees, not one bee-keeper in five hundred can tell whether they are pure or not; and to talk of purity, or keeping them pure, is all nonsense. We want to hear from some of their advocates. I see that quite a number are advertising them, and hope they will not all speak at once. Let some one who knows of their good qualities tell us what they are, and if the Italian bee proves the best, abandon those which are inferior, and not fill the country with stock that will mix the races, thereby lessening, instead of enhancing, the value of the better stock. Remember, we have had great trouble in keeping the Italian bee in its purity, and now we have a double dose to contend with. I certainly would be glad if a better bee could be had, and that I long ago predicted would be obtained by the improvement of the Italian. But new things and wild speculation often sweep over our people at a fearful rate. Some 35 years ago the *Morus multicaulis* fever raged to a fearful extent, and all wanted the mulberry and silkworms. So with our bee-keepers; they caught the fever for the Holy Land, Hungarian and Cyprian bees, not being content with our excellent Italians.

It now turns out that the most practical bee-keepers of this country condemn them, although they have advertised them for sale; but no doubt, like some others, they learned their qualities. If such bee-men as Chas. Dadant are not competent to judge of their qualities, etc., it is useless to look further. Although some good breeders like them, I would like the *modus operandi* for breeding so many races and keeping them pure. If they cannot keep them pure, who would want them?

Fall rains have set in, and bees are doing well.

Rome, Ga., July 16, 1881.

For the American Bee Journal.

Methods of obtaining Surplus Honey.

J. O. SHEARMAN.

The main thing is to obtain a good location, for, if the bees gather but little, the bee-keeper will have less.

The above heading relates more particularly to management with the means we may have at hand. I shall, therefore, give some personal experience, as it seems to me that we gain more information by comparing ways and means than by theory merely.

I like a hive with the back for a division board, so that the brood chamber can be made smaller or larger in proportion to the amount of bees. I have obtained some of my best results by reducing the hive to so few frames in the spring, that the bees will nearly cover them, and keep them in that proportion till surplus begins to come, then put on boxes in like proportion as long as they are satisfied, and all keep to work. As soon as they are crowded, or show indications of swarming, move part of the hive backward; put empty combs or foundation in the middle, add as many boxes as the bees can be crowded into, etc., until the hive is full; then if more room is needed, I take out combs of brood for new colonies, and continue as before.

In a poor season any average colony of bees can be controlled in this way, and I have run some strong colonies through a good honey season with good results, and no swarming, by tiering up surplus too; but it takes too much time to run a large number in that way, in a good season, and we are sometimes pushed to throwing back swarms, or else increase, which is undesirable when we have enough.

In regard to the style of surplus, extracting is generally allowed to give the greatest quantity, but it was rather a failure with me during the past season, for this reason:

Honey came in about fast enough to induce brood rearing, and both stories were near filled with brood while the flow lasted; when it had passed, there were many more young to feed instead of to gather surplus; for our surplus came in short runs, sometimes very short.

Glassed boxes seem to be the most convenient to handle, as they can the more readily be seen when full and taken off independently, and it is the most work done over the centre of colony. It is a slow and mussy job to exchange places with sections before capping, as we often do with boxes. It is quite an object to be able to put on as much room for surplus as possible at times, as bees often gather more than they can cap, in wet weather or a heavy flow. But if tiered up, the top is seldom as well finished or as full as the under tier. Sections, if put in the body of the hive in the brood frames, are apt to have pollen stored in them. They also cost more to crate, and in breakage, in handling or shipping. There are also more cells than in boxes, though honey in sections sells quicker and at a better figure, and it is, therefore, a more desirable shape, when a person has the time to spend on them.

New Richmond, Mich.

Exch.

Bee Culture for the South.

O. F. BLEDSOE.

We hold that a people to be prosperous, must deversify their pursuits, and develop in every direction all the resources of their country. Nothing that tends to the sustenance and comfort of human life but that deserves attention. Northern people (to their credit be it spoken) pursue with the keenest intelligence and ardor, all branches of industry, great and small.

Nothing that their country will develop is neglected. They even force churlish nature to be partial to them. They have taken the minor pursuit of bee-culture, and brought it to a systematic and renumerative branch of industry, though they are compelled to house their bees during the winter, even then losing vast numbers each winter, and in summer have only limited seasons of bloom.

The natural advantages in this pursuit are in many respects with the south. Here no extra care is required in winter, and our bloom is more continuous, though we are not prepared to say that we ever have as great a flow of honey as is sometimes given by the basswood and white clover of the north.

Still our honey resources are undeveloped, and we might, in some sections of the south, excel anything yet achieved by the north.

We know not what we can do until we apply intelligence to the pursuit, and adopt the modern system of bee-culture, which consists, first, in an exact knowledge of the honey bee and its habits, to be obtained from works like Langstroth's and other newer ones, and the current bee periodicals.

Second, in the use of the movable frame hive, so that the entire contents of a hive can easily be taken out at any time.

Third, in the use of the extractor and other appliances and inventions.

Fourth, in the use of Italian bees, which are more prolific, industrious and hardier than the common black bee. They are very beautiful, having yellow bands across the body. They are very gentle, and with the aid of a bee smoker and a veil, one need never be stung in their management. They are moth proof. The bee moth or worm never disturbs a strong colony of Italian bees. I have placed a comb full of worms in the midst of a strong colony of Italians, and in a few minutes the worms were writhing on the ground. I have taken 100 lbs. of honey from a single hive of Italians in a season, and consider that amount as not extraordinary. As much as 500 lbs. have been taken from a single hive in a season in the state of New York.

We hold that bee culture is a highly intellectual pursuit that would be a pleasant and profitable recreation to thousands of farmers, if they would go at it right, and that if it were carried on in Mississipi, as in the north, it would go far, directly or by exchange, toward supplying our people with all the liquid sweets they consume—a result decidedly in the direction of "the glorious privilege of being independent."

Grenada, Miss.

For the American Bee Journal.

Fertilization in Confinement.

C. J. ROBINSON.

We occasionally read of fertilizing in confinement (that is copulating with drones while inclosed in a coop). On page 66, vol. I. of the Bee Journal, the Rev. L. L. Langstroth furnishes an account of an ocular demonstration by Messrs. Cary and Otis, of the queen and drone bee, which I could not indorse as correct at that time nor since, the position of the two. The drone clasping the queen around the body, etc.

The architect of nature has so arranged the gentle parts of the drone and queen, that it is physically impossible to make their genital parts meet with the drone on the back of the queen. They must be reversed, and the queen clasping the drone with her legs, and driving the drone down in close contact with her body with a quick motion, the genitalia are thrown out into the vulva of the queen, by which means the copulation is accomplished, which it is known that the queen could not do if disabled in her legs or wings.

Take a live drone, and by a gentle pressure between the thumb and finger, it will cause them to throw out their genitalia, which curves over towards the back or head, with a joint about 1/3 of the length from the end, which end curves downwards with double barbs at the underside at the joint, and is composed of a very thin membrane filled with compressed air, and the semen also thrown up (that is contained in the 2 horn-shaped sacs situated at the base of the genitalia), with sufficient force to burst the end, and the semen is thrown out leaving the inside casing of the sack which is held by a thread-like tendon, attached at the base, the same as animals after giving birth to their young. On my theory of reproduction of queens, the workers that attend the drones on their excursions cause them to give off semen, which they convey to their hives to perfect queens, which also accounts for the cause and use of so many drones, as they expire immediately on giving off their semen. See what nature has done to accomplish that design—in so constructing the drone that a slight pressure of the abdomen, by the legs of the worker or queen, or the fingers, to throw out the genitalia, if the worker is clasping the body to obtain royal jelly, or the queen to get semen into her spermatheca. In this, the drone is like some plants: when ripe, with a slight pressure the seed vessels explode and throw off the seed.

It seems evident that the Creator had some further use for the drone than barely to copulate with the queen. I have watched the drones and workers as they issue forth from the hive, and take their flight together, the drones appear as if fired with the love of reproduction of their race. The foregoing theory shows the use and wisdom of God in causing so many drones at times, and the mystery is made plain in the perfecting of queens in the absence of drones, by the impregnated worker-larvæ with semen. The queen must fly out before becoming fully fertile and a perfect queen, and have a connection with a drone and her spermatheca, filled with semen, which is done, as indicated in the foregoing. I have caught a number of drones and held them in my hand until warm; then a gentle pressure between the thumb and fingers will cause them to throw out their penis and the thin membrane bursts at the extremity, and the semen is thrown out. I then placed them on a board, and then procured working bees, the same as in hunting wild bees, and they licked up every particle of semen, thus extracted, and conveyed it to their hives.

My theory as indicated in a former article, is the only one yet offered that satisfactorily explains the phenomena of inhabitants of the hive coming forth in changeable and changed sexual forms, and what is now admitted to be the history of the bee, in accordance with the instructive laws given them by the Creator. And by looking at the subject from my stand-point of observation, the reproduction, as set forth in said former article, of the 3 kinds of bees, becomes plain and rational.

Richford, N. Y.

For the American Bee Journal.

The Three-Band test for Italian Bees.

G. M. DOOLITTLE.

On page 219 of the BEE JOURNAL are these words:

"Are we to accept as true the absurd and illogical doctrine, propagated by some vendors of queens and bees, that a queen whose progeny must be filled with light-colored honey, and placed upon a window in order to exhibit the faint outlines of 3 precious bands, is just as pure as a queen whose progeny shows the orange-colored three bands under all circumstances?"

In answer to the above question, or a similar one, A. I. Root says that such is the test that must be applied to the progeny of some queens, imported direct from Italy, in order to see the 3 yellow bands. If such is the case, then we must conclude that the window test is sufficient, or else that no certain purity exists in the long continued home of the Italian bee. Then we must also conclude that the purity of the Italian bee consists in what is called "thoroughbred," rather than their being a distinct race or variety of bees, if we do not accept the window test.

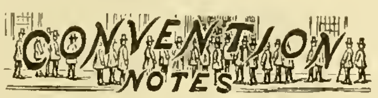
Once more; if the window is not as acceptable as the 3 orange-band test, and that the bees showing the latter are the preferable ones, where the need of farther importation from *impure* Italy.

I wish to say a few words about those orange-colored three bands which show under all circumstances. I have had queens from nearly all breeders in the United States, and queens which produced workers, a part of which showed the fourth band as plain as most Italians show the third; still I have yet to see the queen whose progeny not only showed the three and four yellow bands, but also the shield, said to be a characteristic mark of the Cyprian at a certain age, yet at other stages of their existence they would not show the three yellow bands under all circumstances.

It will be seen, I claim the age of the bee has more to do with this three yellow band business. If we look at the young bees as they crawl on the combs from the time of hatching up to 5 or 6 hours old, we shall find that unless the abdomen is curved, there will but few of them show the three yellow bands, nearly all looking like two banded bees; but if we look at them again when from 5 to 10 days old, they will look like different bees, their abdomen having filled out at that age. I claim every bee should show the three yellow bands while standing on the combs, to be such bees as I should want to breed from. Now pass to November, and again we have the same thing which we saw in our very young bees over again, at which time the bees of our best colonies in their undisturbed repose, show scarcely more than the two bands.

As far as my experience goes, I have yet to see the queen whose progeny show the three yellow bands under all circumstances. I quite agree with Mr. Demaree, that condition has a great deal to do with the working capacity of a colony, be they dark or light; still I also believe there is a difference in bees, and that only by a careful selection of the best each year, can the "coming bee" be obtained.

Borodino, N. Y.



Preparing Bees for Winter.

The following discussion on this subject, had at the North Eastern Convention last February, will be of interest, now that it is time to be preparing for another winter. It followed the reading of Mr. Chas. Dadant's essay, as published in the BEE JOURNAL for Aug. 3, 1881, page 242:

Mr. Bacon said it was sometimes impossible to put bees in winter quarters just after a flight. This season cold weather came on suddenly and remained. He advocated winter flights, although bees could be successfully wintered without. I find that bees get moldy in cellars, but they winter well in the bee house.

W. A. House concurred in these remarks: He had wintered in 5 different cellars. Lately he had experimented in out-door wintering. In the winter of 1879-80 he had 104 colonies, and kept 13 in the cellar, the rest being left out-doors. His percentage of losses was largest among the bees kept in the cellar.

Mr. Doolittle thought Mr. Dadant was mistaken in saying that bees would die in 48 hours at a temperature under 40°. Bees would be dormant, but on being brought into warmth would revive. The effect of cold depended on the condition of the stomach of the bee, whether full or not. Mr. Dadant met his views on the subject of water being necessary for the young brood. Mr. Dadant says bees will die if kept longer than 5 or 6 weeks without a flight. His bees had already been in ten weeks without a flight. He had once kept bees five months without flight. He did not think it necessary to put each hive on the same stand it occupied the year previously. He set out his bees promiscuously and lost no bees. The bees marked the place from which they took their flight.

Mr. Bacon said he had given up marking the place where the hives stood. He believed in putting out only a few bees at a time. Putting them all out at once confused the bees.

Mr. Rians said he had been very successful in wintering bees for five years. He wintered on the summer stands, putting a quilt over them and packing around with straw. This winter he put a coffee sack filled with chaff in the tops of the hives to absorb the moisture.

Mr. Scoville said if Mr. Bacon set his bees out at night, he would have no trouble in getting bees mixed.

Mr. Read said he had poor success in wintering bees. One winter he covered the hives with snow, and wintered all but 1 colony out of 11.

Mr. Bacon believed wintering under snow was very good, provided there was no rain.

Mr. House said the moisture of the unfrozen ground, had a bad effect on bees kept under snow.

Mr. Snow said he used a double-walled hive. He placed his bottom board on dry pine shavings to keep the wind from blowing under the hive. This is just as important as a warm floor in a house.

Mr. Read said he had found that bees wintered in the cellar, dwindled more in the spring than those kept out-doors. Mr. House coincided with this.

Mr. Snow said he had built a stone bee house, kept his bees in it one winter, and in the spring found that it took longer to stock them up than those left out-doors. Since then he had adopted the plan of wintering on summer stands with much better results. Had practiced this altogether for ten years with good results.

Dr. Marks gave his experience in wintering bees under snow. He instanced a case where there was heavy crust on the snow, where his bees kept best of all. Bees kept in-doors dwindled twice as much in the spring as those wintered out-doors.

Mr. Doolittle said winters varied, therefore he thought it good policy to winter in the cellar, and out-of-doors in equal proportion. A winter favorable for wintering out-doors, was not favorable to wintering in the cellar, and vice versa.

Mr. Bacon favored a higher temperature than 40° part of the time during the winter.

Mr. House said his experience was precisely like that of Mr. Doolittle in regard to wintering under the snow.

Mr. Doolittle said he had kept bees in a cave, distant from the outer air no less than 3 feet at any point. The temperature of the interior did not vary more than 1 degree the entire winter. The bees wintered very well.

Mr. Nellis thought bees wintered nowhere better than under the snow. Bees under the snow are very dormant and consume but little. He preferred to have the snow as deep as possible; shoveled them out in the spring while the snow was dry. He favored Mr. Doolittle's plan of mixed wintering, that is partly in-doors and partly out-doors.

Mr. Cyrenus said it made some difference whether bees were kept on the ground or a short distance from it. He believed in having just a mound of snow over the hive, and not a heavy bank. With a heavy bank, the hives are apt to become damp. He had practiced keeping bees under snow a dozen years.

Mr. Adsit said he had wintered bees in the cellar for 15 years with good success; never tried wintering out-doors.

President L. C. Root said the best bee-keepers and writers differed from him on this subject. He had wintered bees under from 1 to 15 feet of snow. He thought it important to have honey enough in the smallest number of comb. The matter of preparing for winter is the work of an entire season. Bees are from a warm climate and need an even temperature. The best bee-keepers employ artificial heat to keep their cellars warm. This is one of the best winters we can have for wintering bees, and yet they will not winter well. We must have a place which we can warm if the outside air is too cold. He did not believe a purifying flight necessary. He had found that bees kept in till the 1st of May did the best. Those put out early dwindled. He was an earnest advocate of in-door wintering, believing that by this method bees were kept more nearly at an even temperature, and it was nearest to the natural condition of the bees.

Mr. Betsinger said he had failed in keeping bees under snow. He lost so many bees that he abandoned the method. There are some good points in out-door wintering. He combined these with the best points of in-door wintering. He had cars made 7x6 feet, each car holding 36 colonies. He placed the bees on the cars at his leisure in the fall. He used portable brood chambers. He left the old hives on the summer stands, but moved the brood chambers. Bees will not cling to the old hive, but will stay where the queen and honey are. His bee house was 6x11 feet, with double 4-inch brick walls. There were 4 feet of earth on the roof. There were open spaces to let in fresh air. There were openings on the floor, connecting with the flues between the walls, having a chimney on each of the 4 walls. This kept the air within the building fresh. The points gained were the saving of honey, which was a saving of bees. When the temperature allowed it in the winter, he opened the doors and rolled out the cars, rolling them back before night. This combined the good features of out-door wintering, purifying flights, with the benefits of in-door wintering. He found it impossible to keep bees quiet at a temperature above 36°. The height of inside walls was 7 feet. He built this house over a year ago.

Mr. Clark offered the following resolution, which was adopted:

"*Resolved*, That as bees are natives of warm climates, that in wintering them in colder climates the requisites to do it successfully are a dark, quiet, and even temperature, and plenty of good sealed honey."

* * *

☞ The time selected by the Executive Committee for holding the National Convention. at Lexington, Ky., is October 5, 6 and 7, 1881. All bee-beepers are invited to attend and take part in the deliberations of the Convention. As Lexington is a central point, the Executive Committee hope to have a large attendance from the North, South, East and West, and from Canada, and that the 12th annual meeting of the North American Bee-Keepers' Society will be the most interesting meeting that the bee-keepers of the United States have ever held.

N. P. ALLEN, *Pres.*

* * *

☞ The bee-keepers of Ontairo will hold their annual convention Tuesday, Wednesday, and Thursday evenings, second week of the Industrial fair, 13th, 14th, 15 September, thus allowing those attending the convention to see the exhibition when it is at its best and also the convention, which promises to be of such importance that no bee-keeper can afford to miss it. Ladies are especially invited to attend. Notice as to place of meeting will be given in due time. D. A. JONES.

* * *

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. MILLER, M. D., *Pres.*

C. C. COFFINBERRY, *Sec.*

* * *

☞ The Western Michigan Bee-Keepers' Association will meet in Berlin, Ottawa, Co., Mich., Thursday, Oct. 27, 1881, in Huntley's Hall, at 10:30 a. m. All interested, are cordially invited.

WM. M. S. DODGE, *Sec.*

Coopersville, Mich., Aug. 29, 1881.

* * *

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. GOODNO. *Sec.*

* * *

Bee-Keepers' Union.—The Eastern New York Bee-Keepers' Union Association, will hold their eighth semi-annual Convention on Tuesday, Sept. 27, 1881, at 10 a. m., at Knowersville, N. Y. All bee-keepers are invited to attend. W. D. WRIGHT, *Pres.*

N. D. WEST, *Sec.*

SELECTIONS FROM OUR LETTER BOX

Over 100 Pounds per Colony.—Honey gathering in this part of the country, so far, has been good. My 68 colonies I had left in the spring out of 108 last fall, have averaged over 100 lbs., with a prospect of gathering considerable more. Can you tell me the cause of a queen's eggs not hatching? I have a fine-looking queen that I reared this summer. It is over two months since she began to lay, but not a single egg has hatched yet. C. H. STORDOCK.
Durand, Ill., Aug. 27, 1881.

[It is a strange case. The queen has probably been injured in some manner, which has caused sterility.—ED.]

"The Coming Bee."—Permit me through the JOURNAL, to offer an amendment to my original proposition, and that is as follows:

"Largest and longest worker bees," progeny of a queen reared by the exhibitor—this will exclude Apis Dorsata, or any other race of bees, not in reach of all. I do not know that I shall send any myself, but think now I shall. I can hardly expect to win the prize, and if I do not, I cheerfully pay the small sum of 25 cts. to know who has the best bees, that I may get of him. I have experimented a great deal in crossing, in breeding for length of tongue, size of bees, and gentleness, and find a marked difference in the different crosses. I am also satisfied that the mother of the bees that take the prize, will have been rocked in a horizontal cradle. I send in my 25 cts.; let the ball keep rolling. I hope friend Briggs has received his champion queen, but neither $10 nor $25 would tempt me to unqueen my best colonies. Let all who wish for better colonies, send in 25 cts., and the sum will be large enough in the aggregate to find the "coming bee," and if fertilization in confinement can be accomplished, a good reward in cash will bring it about. J. S. TADLOCK.
Kingsbury, Texas, Aug. 23, 1881.

The Bee Journal worth $10. a Year.—The Weekly BEE JOURNAL comes to hand with the regularity of clockwork, and fills the bill every time. I could not think of getting along without it, if it cost $10. a year. Our bees are not gathering much buckwheat honey. What is the reason?
WM. CAIRNS.
Rockland, N. Y., Aug. 30, 1881.

Royal Jelly, etc.—In the BEE JOURNAL for Aug. 24, page 268, Mr. C. J. Robinson advances a theory that I do not understand. He writes: "I claim, as set forth in a former article, that queens are impregnated with royal jelly (drone's semen), while in the larval state." What I wish to learn is, how a nucleus colony composed of all young bees, furnished with only worker eggs to raise a queen, obtain this royal jelly to impregnate the queen in the larval state?
W. H. STOUT.
Pine Grove, Pa., Aug. 29, 1881.

Drouth in Texas.—The great drouth still continues. The top of the ground is drier than at any time since 1864. It cannot well be described better than to say that everything is burnt up. W. H. ANDREWS.
McKinney, Texas, Aug. 20, 1881.

Dry and Hot.—The early part of the season was good for bees, in this section. I started with 3 weak colonies, and bought 4 more. I now have 28 good colonies. I sowed buckwheat, but it was too dry and hot; it does not afford much honey, and unless it rains soon, I shall have to feed to get through the winter.
E. ARMSTRONG.
Jerseyville. Ill.

Lycium Barbarum.—I send you all the parts of an ornamental shrub growing in my grounds; will you kindly give its name in the BEE JOURNAL, and how best propagated? It is a remarkable shrub for honey, my bees having been constantly busy on its succession of flowers for over 2 months, and are still so, when everything else is suffering from drouth. It has also the merit of being a very pretty hedge.
I. C. THORN, M. D.
Streetsville, Can., Aug. 17, 1881.

[The specimen sent is *Lycium barbarum*, or matrimony vine. It belongs to the order *Solanaceæ*, which includes the tomato, potato, nightshade, bittersweet, egg-plant, pepper, groundcherry, horse-nettle, etc. It is easily propagated by layering.—W. J. BEAL.]

The Nicest Honey for Years.—The bees almost all died in this locality last winter, but those that were left after the cold winds had passed, and the sun warmed the bees, began to gather pollen, and increase in numbers and stores. I have 65 colonies now. They have done very nicely. I have the purest and whitest honey this season that I have had for the past 5 years. My honey is mostly in prize packages; have extracted but very little. The greatest question now is, how to winter them without loss. I shall be glad to receive the BEE JOURNAL in its new form next year, and I hope it may increase in interest in the future, as it has in the past.
THOS. PIERCE.
Gansevoort, N. Y., Aug. 25, 1881.

A Terror.—This summer has been a terrible one for the bees of this Province, for ever since the blooming of white clover to the present, continuous rains have fallen. My 12 colonies have hardly a pound of surplus honey in them at this date.
J. MATTHEW JONES.
Waterville, N. S., Aug. 25, 1881.

Melilot on Timbered Land.—Please tell us in the BEE JOURNAL, whether melilot will do well if sown on timber land, if only the underbrush is cut out? Will the shade of the timber prevent it from yielding honey?
J. S. HUGHES.
Mt. Zion, Ill., Aug. 26, 1881.

[We think it would be difficult to find shade dense enough to prevent its blooming and secretion of honey. It would be better, however, to harrow or brush in the seeds, as birds are very fond of them.—ED.]

Two Queens in One Hive.—I have found 2 queens in a colony of bees; both are good laying queens, and both seem very peaceable in the hive. About the middle of June the bees prepared to swarm; they had 3 queen-cells, capped over; I waited, and looked in the hive every few days. One day I found that one queen-cell was already hatched, but I could not find the young queen. I then made up my mind to divide the colony, and took out one frame of bees containing the queen, and placed it in an empty hive with comb foundation, leaving it in place of the old hive, and put that in a new place, and by the next day I had a pretty fair colony of bees with the old queen; but on that frame where the old queen was, I found no queen-cell. I left all the queen-cells with the young bees. About a week after dividing, I looked in the hive where the old queen was, and could not find her, and found they had a queen-cell started. I then thought the old queen was lost, or the bees had killed her; 3 weeks ago I found every frame—even the outside ones full of brood, all ready to hatch, and no young eggs or larvæ; that drew my attention, and I looked for the queen, but found 2 queens—the old one which was in the colony when I divided it, also a new one, both on one frame, about 4 inches apart, and it seemed to me both were busy looking for empty cells. I have looked once every week since, and always find the 2 queens peaceably busy, with the difference that the old queen creeps around pretty slow, while the young one is quite lively.
F. W. DITTMER.
Defiance, O., Aug. 25, 1881.

A Good Honey Plant.—Please name this plant; it commences blooming a little before basswood, and the bees prefer it to basswood; it yields honey as white as water, and pollen as blue as blue paint. I got about 100 pounds of honey per colony from this plant. The honey is very sweet, and has but little flavor; people say I make it of white sugar, and object to buy it. The bees ceased to work on it about a week ago on account of bad weather, and brood-rearing stopped. Bees will rear no more brood now, as the last brood usually hatches here the first week in September. I would like the name of the plant so as to know what to call my honey. It would be excellent to cultivate for honey, as it will thrive anywhere, and the seeds fly all over the country. It grows between 3 and 5 feet high. WM. FRITZE.
Duluth, Minn., Aug. 14, 1881.

[Prof. Beal informs me that the plant is willow herb *Epilobium augustifolium*. It is also known as gnat weed and fire weed, and is common throughout the North.—A. J. COOK.]

Eggs that Will Not Hatch.—I purchased an Italian queen of a breeder in Kentucky about a month ago; she was somewhat daubed when I received her, but I introduced her into a good, strong colony. In 5 or 6 days after I found the queen apparently all right, and laying in 1 sheet of comb; being busy, I did not look at her any more until yesterday, which was about 25 or 30 days from the time I had introduced her. As she was a warranted queen, I thought I would look at her worker progeny. I found the queen crawling over the combs as large as life, and appeared to be prolific, but to my great surprise there was no larvæ in the hive, but plenty of eggs in the same sheet. The bees appeared to be perfectly satisfied with her, and did not build queen cells, as with a fertile worker or drone-laying queen. It is something new to me, what do you think about it? J. R. REEVE.
Martinsburg, Tex., Aug. 30, 1881.

[We can assign no positive cause for the phenomenon. You will find in this number a similar instance related by Mr. C. H. Stordock, of Durand, Ill.—ED.]

H. A. Burch Again.—This has been a good season for bees, here, up to about July 10, when dry weather set in. We have had no rain here from that time until to-day. We are having a fine rain now, and I hope we will have a good fall for honey. The drouth has been tolerably hard on us, but not so severe as it has been elsewhere. I have increased my bees from 5 colonies to 18 by natural and artificial means, and think they are in tolerably good condition. I am sorry that H. A. Burch has disappointed his customers so; I recommended him to some of my bee-keeping friends last spring. He now has their money and gave nothing in return.
ISAAC SHARP.
Waveland, Ind., Aug. 31, 1881.

Rolling in Honey.—We began the season with 30 colonies, and now have 72. We increase by dividing and always succeed; 1 colony gave us 5; 2 were artificial and 3 natural. We have 4 acres in buckwheat, and the bees are rolling in the honey. If the weather keeps good we shall have an immense yield. In queen rearing, we were successful. I notice, in other localities, some breeders were unsuccessful. MOLLER & SON.
Fremont, Neb., Aug. 23, 1881.

Vennor's Predictions.—I think Vennor should have a leather medal, in place of frequent storms. We have a disastrous drouth; for frosts, 100° in the shade. There has not been rain enough here for 6 weeks to lay the dust fairly. Of fall honey we have about ¼ a crop; basswood about the same, and white clover about ½ a crop. H. D. BURRELL.
Bangor, Mich., Sept. 1, 1881.

My Report.—Early drouth made the clover crop less than ½ the average. Something unknown to me made the basswood the same. We are now in the middle of the fall harvest, and as it is 5 weeks and 2 days since we had any rain (we never knew such a severe drouth in this locality before), our fall yield will not be but ¼ of an average crop. JAMES HEDDON.
Dowagiac, Mich., Aug. 29, 1881.

That Bogus Dunham Foundation.—The apiarian supply dealers of Michigan (one of whom I have found to be very punctual and honest in business transactions), wish me to give the name of the firm from whom I purchased foundation, spoken of on page 29 of the AMERICAN BEE JOURNAL of 1881. As by keeping the name from the public, they are all suffering loss of business, I cheerfully comply with their request. Messrs. H. A. Burch & Co., of South Haven, Mich., are the parties that supplied the bogus Dunham foundation. J. B. HALL.
Woodstock, Ont., Aug. 31, 1881.

"The Bridal Eve."—Mrs. E. D. E. N. Southworth's powerful and highly absorbing novel "The Bridal Eve" is shortly to be issued by Messrs. T, B. Peterson & Brothers of Philadelphia, Pa., in excellent style at the exceedingly low price of 75 cents a copy. This fascinating story deals with love, romance, crime, and woman's devotion, and has a plot of the most ingenious and effective description. The scene is laid in England, and the characters mostly move in high social circles. The cheapness of the work should give it an immense sale. Everybody will be delighted with it.

☞ The St. Joseph *Democrat* says that Missouri was the second State in the Union for the production of honey in 1870. The following shows the surplus production of the counties named, in that year: Atchison, 10,608 lbs.; Andrew, 16,183; Buchanan, 7,626; Caldwell, 21,340; Carroll, 20,812; Clinton, 18,891; DeKalb, 10,627; Daviess, 25,052; Gentry, 23,480; Harrison, 46,924; Livingston, 17,331; Holt, 15,670; Nodaway, 15,335; Platte, 12,044; Worth, 17,000.

☞ The South Eastern Mich. Bee-Keepers' Association, will hold its 4th meeting at the Court House, in Ann Arbor, Wednesday, Oct. 5, 1881, at 9 o'clock a. m.; the week of the County Fair. An adjourned meeting may be held during the week. All interested are invited to attend. By order of the Executive Committee.
N. A. PRUDDEN, *Chairman*.

☞ The North Eastern Wis. Bee-Keepers' Association, will hold its fall meeting at Peewaukee, Wis., on Tuesday and Wednesday, Oct. 11 and 12. A full attendance is cordially requested. Notice of the plauce of meeting will be found at the local Post Office.
GEO. CHURCH, *Pres.*, Neenah, Wis.
FRANCES DUNHAM, *Sec.*, Depere, Wis.

☞ The Eastern Michigan bee-keepers' Association will hold its fall meeting in Detroit, Oct. 4, in the Y. M. C. A. hall, at 10 o'clock a. m.
A. B. WEED, *Sec.*

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.
N. E. FRANCE. *Sec.*, Platteville, Wis.

SPECIAL NOTICES.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

◆

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆

☞ Articles for publication must be written on a separate piece of paper from items of business.

◆

Photographs of prominent Apiarists—Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

◆

☞ When changing a postoffice address, mention the *old* as well as the new address.

◆

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

Faded or Gray Hair gradually recovers its youthful color and lustre by the use of Parker's Hair Balsam, an elegant dressing, admired for its purity and rich perfume. 36w4t

◆

There is More Strength restoring power in a 50 cent bottle of Parker's Ginger Tonic than in a bushel of malt or a gallon of milk. As an appetizer, blood purifier and kidney corrector, there is nothing like it, and invalids find it a wonderful invigorant for mind and body. See other column. 36w4t

◆

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

◆

Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. It will pay to devote a few hours to the BEE JOURNAL.

◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

◆

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—New honey is coming in freely and the demand is good.

We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 7@9c.

BEESWAX—Prime quality, 18@21c.

AL. H. NEWMAN, 972 W. Madison St.
Chicago, Sept. 5, 1881.

NEW YORK.

HONEY—There is no settled market price yet for honey, as there is none selling.

We quote as follows: White comb, in small boxes, 15@18c; dark, in small boxes, 12@15c. Extracted, white, 10@12c.; dark, 7@9c.

BEESWAX.—Prime quality, 22@24c.

THORN & CO., 11 and 13 Devoe avenue.
New York, Aug. 18, 1881.

CINCINNATI.

HONEY.—Last week I paid King Cramer 17c. per lb. for a lot of about 2,000 lbs. It was in the Muth sections, 5¼x6, without separators. Every comb is perfect, which speaks well for the producer. If Mr. Cramer did not succeed, this season, in establishing rules for queen fertilization, he succeeded admirably in getting one of the finest lots of comb honey in the country. Extracted honey is just commencing to be in good demand.

I quote: Good comb honey, in sections, is worth 14@16c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.
Cincinnati, Aug. 31, 1881.

BOSTON.

HONEY—The prices of honey are not regularly quoted in our papers here. We quote: Honey in 1 pound sections retails at 25c.; in 2 pound sections, 20c.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street,
Boston, Mass., Aug. 31, 1881.

CLEVELAND.

HONEY—Comb honey continues in good demand at 20c. for 1 lb. white and 19c. for 2 lb. sections. Extracted honey, 10@12c.

BEESWAX—18@20c.

A. C. KENDEL, 115 Ontario Street.
Cleveland, O., Sept. 3, 1881.

BALTIMORE.

HONEY.—Both the supply and demand are too meager to report.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 22c.; grease wax, 12@13c.—*Baltimore Market Journal.*

SAN FRANCISCO.

HONEY.—A sale of 50 cases of old extracted, clear, is noted at 10c., an extreme figure with wholesale buyers. Some new extracted is offering at 9c., whole other lots are limited at 11c., but the latter price is beyond anything now obtainable, notwithstanding the light supply.

We quote white comb, 14@16c.; dark to good, 11@13c. Extracted, choice to extra white, 9@10½c.; dark and candied, 7@8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.
San Francisco, Cal., Aug. 27, 1881.

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

ST. LOUIS.

HONEY.—Demand improving slightly; prices unchanged.

We quote: New, strained, 7@8c.; extracted, in cans, 9@10c.; comb, 13@14c.

BEESWAX—Prime yellow sells at 20@21c.

R. C. GREER & CO., 117 N. Main Street.
St. Louis, Mo., Sept. 3, 1881.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept. 13-15—Ontario Bee-Keepers, Toronto, Ont.
27—Eastern N. Y. Union, Knowersville, N. Y. N. D. West, Sec. Middleburg, N. Y.
Oct. 4—Eastern Michigan, at Detroit, Mich. A. B. Weed, Sec., Detroit, Mich.
5—Southeastern Mich., at Ann Arbor, Mich.
5-7—National, at Lexington, Ky. Dr. E. Parmly, Sec., New York City.
12—Kentucky State, at Louisville, Ky.
11, 12—Northern Michigan, at Maple Rapids. O. R. Goodno, Sec., Carson City, Mich.
11, 12—Northeastern Wis., at Pewaukee, Wis. Frances Dunham, Sec., DePere, Wis.
12—Central Ky., in Exp. B'd'g, Louisville, Ky. W. Williamson, Sec., Lexington, Ky.
20—Union Kentucky, at Shelbyville, Ky. G. W. Demaree, Sec., Christiansburg, Ky.
25, 26 Northwestern District, at Chicago, Ill. C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich. George L. Perry, Sec.
27—Western Mich., at Berlin, Mich. Wm. M. S. Dodge, Sec., Coopersville, Mich.
Nov. 30—S. W. Wisconsin, at Platteville, Wis. N. E. France, Sec., Platteville, Wis.
1882.
Jan. 10—Cortland Union, at Cortland, N. Y. C. M. Bean, Sec., McGrawville, N. Y.
25—Northeastern, at Utica, N. Y. Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich. A. B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas. Wm. R. Howard, Sec.
May ——Champlain Valley, at Bristol, Vt. T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

CLOSING OUT FOR 1881.

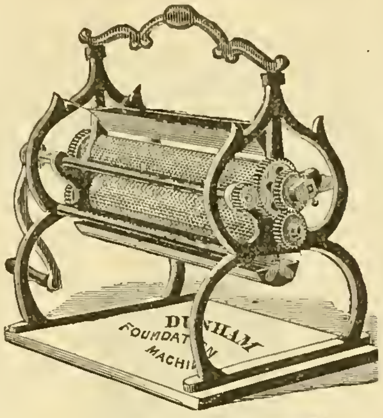
Six Italian Queens for $5. Purity, safe arrival and satisfaction guaranteed. Address,
36w1tp REV. J. E. KEARNS, Morning Sun, Iowa.

SPECIAL SALE OF QUEENS.

To close out my present stock of fine ITALIAN QUEENS, I will sell 100 Dollar Queens at 65c. each or $7.00 per doz. Also, 25 Tested at $1.00 each.
36w1tp **E. A. THOMAS,** Coleraine, Mass.

FRANCES DUNHAM,

Inventor and Sole Manufacturer of the



Dunham Foundation Mill,

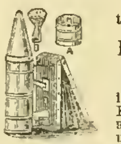
Patented Aug. 23th, 1881.
☞ New Circular and Samples free. ☜
1smtf FRANCES DUNHAM, DePere, Wis.

W. Z. HUTCHINSON,

Rogersville, Genesee County, Mich.,

Makes a *specialty* of rearing fine Italian queens. All queens bred from imported queens, and from the purest and best home-bred queens, and the cells built in full colonies. No black bees in the vicinity. Single queen, $1.00; six queens for $5.00; twelve or more, 75c. each. Tested queens, $2.00 each. Safe arrival by mail guaranteed. Send money by draft, registered letter, or by money order drawn on Flint, Mich. He has a stock of queens on hand, and can fill orders *promptly*. 28eowtf

BUY the BEST.



The best informed bee-keepers in the United States, say that our

DOUBLE-DRAFT QUINBY SMOKER

is decidedly the BEST now made. Hetherington discards all others, and orders two dozen for his own use. Doolittle says it is unequaled. So say all who see and use it. Price, by mail, **$1.50** and **$1.75.**

OUR BOOK,

Quinby's New Bee-Keeping,

QUINBY'S
NEW
BEE KEEPING
BY MAIL
$1.50

continues to grow in popularity, and is the

Most Practical Work

published. Price, by mail, **$1.50.** We sell

Everything Used in Advanced Bee-Culture.

Send for Illustrated Circular to

L. C. ROOT & BRO.,
26smtf MOHAWK, NEW YORK.

SEND POSTAL for my 12-page circular price list of **Italian, Cyprian and Holy Land Bees, Queens and Apiarian Supplies.**
H. H. BROWN,
34sm4t Light Street, Columbia Co., Pa.

C. Olm's Comb Foundation Machine.

☞ Send for Sample and Circular.
18mtf **C. OLM,** Fond du Lac, Wis.

Bees for Sale.

I offer for sale

75 COLONIES OF CHOICE STOCK.

For particulars and circular of General Supplies, address

JAMES HEDDON,
36m1t **Dowagiac, Mich.**

15 One-Cent Stamps

Will pay for our exhaustive pamphlet on raising, handling and marketing extracted honey.

COLONIES
WITH

Imported Italian Queens,

Of our own Importation,

GUARANTEED PURE AND GENUINE.

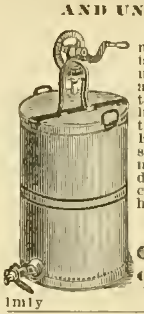
Our **Comb Foundation** was awarded the diploma at the North-Eastern Bee-Keepers' Convention held in February.

Smokers, Knives, Extractors, &c.

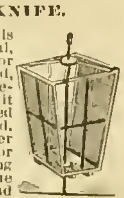
Price List, with 3 samples of Comb Foundation, free.
CHAS. DADANT & SON,
9smtf Hamilton, Hancock Co., Ill.

MUTH'S
HONEY EXTRACTOR

AND UNCAPPING KNIFE.

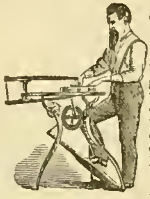


The Extractor is made of all metal, is always ready for use, easily cleaned, and will last a life-time. In fact, it has only to be used to be appreciated. Every Bee-keeper should send for my circular, giving details about the care of bees, and how to get the most Honey.



CHAS. F. MUTH, No. 976 Central Av., Cincinnati, O.
1m1y

BARNES' PATENT
Foot Power Machinery



CIRCULAR and
SCROLL SAWS.

Hand, Circular Rip Saws for general heavy and light ripping, Lathes, &c. These machines are especially adapted to **Hive Making.** It will pay every bee-keeper to send for our 48 page Illustrated Catalogue.
W. F. & JOHN BARNES,
Rockford, Winnebago Co., Ill.

Italian Queens Only 80 Cents.

Warranted $1.00, Tested $1.50, 10 frame Colonies $5.75 to $8. ☞ Send for Circular and save money.
9m8t **E. A. THOMAS,** Coleraine, Mass.

SEND for MY CIRCULAR and PRICE LIST of Italian Colonies, Queens, Nuclei and Apiarian Supplies.
H. H. BROWN,
18mtf **Light Street, Col. Co., Pa.**

HEADQUARTERS IN THE SOUTH,

for the manufacture and sale of **BEE-KEEPERS' SUPPLIES, ITALIAN QUEENS** and **BEES,** all bred from mothers of my own importation—Dollar Queens, $1; Tested Queens, $2.50 4-frame Nucleus, $5. Safe arrival and satisfaction guaranteed. Send for my illustrated catalogue.
22mtf PAUL L. VIALLON, Bayou Goula, La.

Friends, if you are in any way interested in

BEES OR HONEY

We will with pleasure send you a sample copy of

Monthly Gleanings in Bee-Culture,

with a descriptive price-list of the latest improvements in **Hives, Honey Extractors, Artificial Comb, Section Honey Boxes,** all books and journals, and everything pertaining to Bee Culture. *Nothing Patented.* Simply send your address on a postal card, *written plainly*, to
A. I. ROOT, Medina, Ohio.

JOSEPH D. ENAS,

(Sunny Side Apiary,)

Pure Italian Queens, Bees, Colonies, *Nuclei, Comb Foundation, etc.*

Address. **Napa, Napa County, Cal.**
9mtf

Floreston Cologne

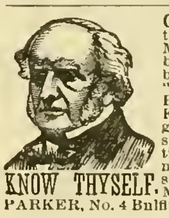
The Most Fragrant and Lasting of all Perfumes. New, & Fashionable. Sold by dealers in Drugs & Perfumery. Signature of Hiscox & Co., N. Y., on every bottle.

All Farmers, Mothers, Business Men, Mechanics, &c., who are tired out by work or worry, and all who are miserable with Dyspepsia, Rheumatism, Neuralgia, or Bowel, Kidney or Liver Complaints, you can be invigorated and cured by using

PARKER'S GINGER TONIC

If you are wasting away with Consumption, Dissipation or any weakness, you will find Parker's Ginger Tonic the greatest Blood Fertilizer and the **Best Health & Strength Restorer you Can Use** and far superior to Bitters and other Tonics, as it builds up the system, but never intoxicates. 50 ct. and $1 sizes. Hiscox & Co., Chemists, N. Y.

PARKER'S HAIR BALSAM Removes Dandruff Prevents Baldness Restores Color


KNOW THYSELF.

GOLD MEDAL Awarded the Author. A new and great Medical Work, warranted the best and cheapest, indispensable to every man, entitled "The Science of Life, or Self-Preservation;" bound in finest French muslin, embossed, full gilt, 300 pp., contains beautiful steel engravings, 125 prescriptions, price only $1.25 sent by mail; illustrated sample, 6c; send now. Address Peabody Medical institute or Dr. W. H. PARKER, No. 4 Bulfinch st., Boston. 22w1y

ESTIMATES

Given for **ADVERTISING** in any NEWSPAPER in the Country. Our new Price List for Advertisers SENT FREE.
C. A. COOK & CO., Advertising Agents,
Cor. Dearborn & Wash'n Sts., CHICAGO.

THE AMERICAN BEE JOURNAL

OLDEST BEE PAPER IN AMERICA — ESTABLISHED IN 1861

RATES FOR ADVERTISING.

A line of this type will contain about **eight words**; fourteen lines will occupy 1 inch of space.

One to three weeks, each insertion,	**20c.**	per line.
Four " or more" "	**18c.**	"
Eight, " " " "	**15c.**	"
Thirteen " " " "	**12c.**	"
Twenty-six " " " "	**10c.**	"
Fifty-two " " " "	**8c.**	"

Special Notices, 50 cents per line.

Advertisements withdrawn before the expiration of the contract, will be charged the full rate for the time the advertisement *is* inserted.

Transient Advertisements payable in advance. —Yearly Contracts payable quarterly, in advance. reliable dealers. Cases of *real* imposition will be exposed.

THOMAS G. NEWMAN,
974 West Madison Street., Chicago, Ill.

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Notice to Vice Presidents.

I desire to say to the Vice Presidents of the North American Bee-Keepers' Society, that I wish each one would send me a report of bees and honey in their respective States, as it is customary for the Vice Presidents to make such reports at the annual meeting of our Society. I hope that none of them will fail to do so. I would be glad to meet them at the Convention, and become personally acquainted with them. Programmes will be sent to them for distribution to the bee-keepers of their States. N. P. ALLEN, Pres.

AGENTS WANTED to sell Dr. Chase's 2,000 Recipe Book. *Sells at Sight*, Double your money Address Dr. Chase's Printing House, Ann Arbor, Mich
36m1y

WANTED—A few tons of York State COMB HONEY. State probable amount, how soon it can be put in shipping order, and address
32w4tp F. I. SAGE, Wethersfield, Conn.

HOW TO MAKE MONEY. For particulars enclose 10 cents to Lock Box 318, Kalamazoo, Mich, 34w13t

FREE! A sample copy of the **New England Bee Journal.** H. Poole, Mechanic Falls, Me.
35wtf

Be SURE

To send a postal card for our Illustrated Catalogue of Apiarian Supplies before purchasing elsewhere. It contains illustrations and descriptions of everything new and valuable needed in an apiary, at the lowest prices. Italian, Cyprian and Holy Land Queens and Bees.
J. C. & H. P. SAYLES,
2eow15t Hartford, Wis.

QUEENS! QUEENS!

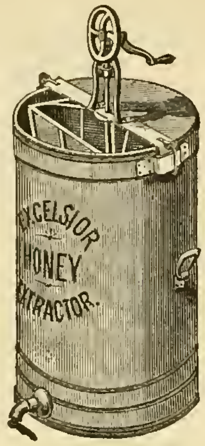
One Dollar will buy one of our beautiful Italian, Cyprian, Holy Land or Hungarian Queens; **will select the very best**, from 200 queens, for $1.50 each, all warranted pure and safe arrival by mail guaranteed. Send for 20th circular.
H. ALLEY,
35w1t **Wenham, Mass.**

$777 A YEAR and expenses to agents, outfit free, address **P. O. Vickery Augusta, Maine.** 36w1y

Excelsior Honey Extractors.

The following letter explains itself:

A. H. NEWMAN, ESQ., Dear Sir: No. 4 Excelsior Honey Extractor (with three-sided comb basket), received to day and tested. I find it EXCELLENT. I can take from my hives, extract, and return frames at the rate of **100 pounds per hour.** Do not know how long I could keep up at that rate. It this isn't work, it resembles it very much.
Truly yours, J. M SHUCK.
Des Moines, Iowa, July 30, 1881.


EXCELSIOR HONEY EXTRACTOR.

Sizes and Prices of Extractors:

No. 1—for 2 Langstroth frames, 10x18 inc....	$8 00
No. 2—for 2 American frames, 13x13 inc......	8 00
No. 3—for 2 frames of any size, 13x20 inc....	12 00
No. 4—for 3 frames of any size, 12½x220 inc.	12 00
No. 5—for 4 frames of any size, 13x20 inc....	14 00

ALFRED H. NEWMAN,
31tf 972 West Madison Street, Chicago, Ill.

ITALIAN QUEENS.

I can now furnish ITALIAN QUEENS, **BY RETURN MAIL**, at the following prices:

Tested Queens....	$1 50
Warranted Queens....	1 00
Cyprian Queens, untested....	1 00

As most all the Dollar Queens I sold last year were pure, I will warrant them this year. J. T. WILSON,
Mortonsville, Woodford Co., Ky.
31w5t

THE KANSAS BEE-KEEPER,

Published Monthly at Columbus, Kan.,

A new sixteen-column bee paper, devoted entirely to the best interests of honey producers; dealers in Supplies and breeders of Queens and Bees. Will be sent to any address one year for only thirty cents. We club with the Weekly American Bee Journal for only $2.15. Sample copies free. Address, SCOVELL & ANDERSON,
28wtf Columbus, Kansas.

Rev. A. SALISBURY

Camargo, Douglas County, Ill.

Warranted Italian Queens, $1.00; Tested Italian Queens, $2; Cyprian Queens, $2.00; Tested Cyprian Queens, $4; 1 frame Nucleus, Italians, $4.00; 1 frame Nucleus, Cyprians, $5; Colony of Italians, 8 frames, $8.00; Colony of Cyprians, 8 frames, $10.00. Wax worked 10c. per lb. Pure Comb Foundation, on Dunham Machine, 25 lbs. or over, 35c. per lb. ☞ Send for Circular. 1w1y

HONEY A SPECIALTY.

W. F. CONNER,

Late of Conner, Burnett & Co.,

161 So. Water Street, Chicago,

GENERAL

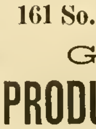
PRODUCE COMMISSION.

We ask you to correspond with us before disposing of your HONEY CROP, as we can be of much service, having constant intelligence from all parts of the country.

We would refer to JAMES HEDDON, Dowagiac, Mich., and J. OATMAN & SONS, Dundee, Ill. 31w1y

FLAT-BOTTOM

COMB FOUNDATION,



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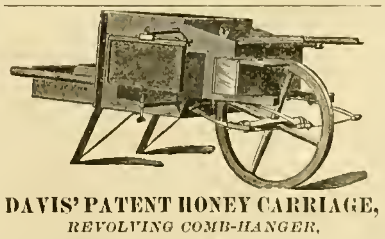

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ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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The Foreign Demand for Honey.

On page 236 of our issue for July 27, we assumed that "Honey is Becoming a Staple," and adduced in proof of our assumption the statistics of the rapid increase in importations and sales of American honey in Germany within the past four years. We now have further confirmation in the following letter from Mr. W. M. Hoge, who is connected with one of the large jobbing houses in London:

> If you know of a honey producer who wants to market his crop in England, consign him to us, if his honey is strictly white comb, and stored in nice boxes. I have an outlet for 50,000 pounds. We can market that quantity, and the producer can take the proceeds back in a month from the time he lands. But he must load it on the steamer *himself*, and unload it. There is no danger whatever of the honey-combs in tramsit—the danger lies in the *loading* and *unloading*.
>
> London, England, Aug. 25, 1881.

We now feel assured that with a ready and anxious market for our comb honey in England, and France, Germany, China and Japan as eager consumers of American extracted honey, all fears of over-stocking the market are happily set at rest, and the time is not far distant when prices will be as quotable, and as generally uniform as for any other product. Nor need we fear a divided market by reason of foreign competition, for no country in Europe is so greatly favored by nature for honey producing as is the United States, and none produces honey of finer quality.

Time was when prejudice militated greatly against our sales abroad, but the cultivation of fraternal relations with our friends in foreign lands, and the assurance of friendly feelings and honorable transactions, have turned their honest prejudice into esteem, and their jealousy into generous co-operation.

With the assurance of a ready sale for every surplus pound of honey, it now devolves upon our producers, as individuals and in their conventional bodies, to deliberate upon the best methods of meeting this demand. Much depends upon them.

Centralizing the Honey Traffic.

After a careful perusal of the able article on page 292, in this number, by Mr. G. W. House, we can heartily commend it to our readers for their best thoughts. Bee-keepers should, as far as practicable, be thoroughly informed in the statistical department of their pursuit, so that each may not only know how much he has produced and what it has cost him, but also how much has been produced in the whole country, and its value. To this end, all should furnish detailed reports for publication.

We cannot agree with Mr. House in the desirability of centralizing the honey traffic in the hands of two or three, or even more, dealers in each of the principal markets. Several years ago this might have been advisable while the trade was in an undeveloped state, when honey was shipped to market with no reference to grade, that in the comb being packed in tubs, jars, pans, soap boxes, etc., and the extracted in large, hardwood barrels, or whatever else came handiest. No commission merchant, with an established trade, cared to handle it; and if perchance a shipment was consigned to him, it generally proved a nuisance in the store, and was sold to the first bidder, at any price offered, to get it out of the way and to abate the leaky nuisance.

Now, however, a wonderful transformation is taking place. Any respectable commission man will be glad to handle the popular one and two-pound sections, properly crated and glassed, and certainly extracted honey in the neat and attractive five, ten and fifteen gallon kegs, is quite as desirable to handle as butter, cheese and eggs. Besides, with the custom now universally coming in vogue with the more practical apiarists, of grading and keeping separate each kind of honey, no long experience or especial familiarity with the article on the part of the commission merchant or jobber is required; but, rather, an extensive business acquaintance, a well established general jobbing trade, and an unimpeachable reputation for honesty and veracity.

Again, the proposed centralization or co-operation is impracticable, for the reason that the necessities of bee-keepers vary as much as do their ideas regarding hives, wintering, etc. As a rule, the heavier producers have their outlets to market already established, or have had sufficient experience to be able to sell in job lots to the best advantage; these men, of course, would see no advantage to be derived from co-operation, and would not jeopardize their established trade by entering into the scheme. On the other hand, the lesser producers, and those "new at the business," as a rule, want to realize immediately, and more frequently accompany their honey to market, or by correspondence and through samples forwarded, sell it outright; this class would gain nothing, because, being generally inexperienced, their product would grade lower, and their returns would be correspondingly unsatisfactory, unless "worked in" with some better grade, in which case an imposition is practiced on the buyer.

The honey interest of America is of too great magnitude and the producers too numerous, to make successful any attempt to centralize the trade in the hands of a score or less of middlemen. We cannot, however, commend the indiscriminate slaughter of prices by intrusting the sale of honey, or anything else, to irresponsible or unprincipled agents. With a little prudence and painstaking on the part of the producer, enough honorable, competent and willing men can be found in each city to handle to advantage every pound of desirable honey which may be forwarded to it for a market.

St. Joseph, Mo., Exposition.—The editor has just returned from his visit to the St. Joseph, Mo., Exposition. We will give an extended report in our next issue. We cannot refrain from saying, however, that through the energy and excellent management of Mr. R. S. Musser, the apicultural department was a most complete success.

The Honey Harvest.

The great question now is: "What will the harvest be?" Mr. W. D. Wright, of Knowersville, N. Y., on a postal card writes us: "Why do you not call for universal reports of the honey crop this season, as you did last year?" We reply: For the simple reason that we want to get them all in within a few days, so as to publish *all at one time*, and it was too early to get a correct report. Several others have expressed a desire to have a statistical table, and we shall, therefore, ask *all* to send us, on Sept. 26th, a short, concise report on a postal card. If ALL will follow the form given below it will aid us in making up the figures:

I had............colonies in spring; have now....................colonies. Have extracted........pounds of light honey, and........pounds dark honey; comb honey........pounds. Bees are now in........condition.

Sign your NAME, POST OFFICE, COUNTY and STATE, and mail it to us promptly on Sept. 26th. If delayed till after the 26th, it will be of little interest to the public, and no practical use to us.

If promptly furnished, this Report will benefit every producer of honey who desires to place his crop upon the market, and while it need not cost more than *one cent* for each (the cost of the postal card), it will be of immense benefit to the honey interests of the whole country. Let *every one* give this prompt attention.

Apis Americana.—On page 291, the Rev. W. F. Clarke remarks as follows: "The editor of the AMERICAN BEE JOURNAL has proclaimed *Apis Americana* the coming bee. But, Mr. Newman, 'bide a wee,' possibly *Apis Canadensis* will win the laurels." Even then, Mr. Clarke, we are right; unless Canada is not a part of *America!* We care not whether it is produced in one of the "States," Provinces, or countries on the American Continent; but, when "the coming bee" is produced, its name will be *Apis Americana!* Let that be distinctly understood in advance.

☞ We have received the price list of poultry and nursery stock for the fall of 1881, issued by Thos. J. Ward, St. Marys, Ind.

☞ We are pleased to learn that Mr. J. T. Wilson has recovered from his late injuries, which we mentioned last week, and is attending to business.

CORRESPONDENCE.

For the American Bee Journal.

Origin of Drones—Parthenogenesis.

DR. WM. R. HOWARD.

Mr. C. J. Robinson, in the AMERICAN BEE JOURNAL of March 23 and Aug. 24, has made some deductions on his new drone theory. He denies parthenogenesis as being a fact in nature, and considers it a hypothetical doctrine, etc. Let us fully understand the subject under consideration, and then see how far Mr. R. goes with us. First, let us see what can be proven in regard to parthenogenesis, and secondly, apply it to his drone theory. Let us take up first for consideration, bisexual animals, examine them, and compare them with commencing at the egg.

According to Prof. H. J. Clark (Mind in Nature), an egg is a globule surrounded by the vitelline membrane, or yolk envelope, which is protected by the chorion, or egg shell, consisting of two kinds of fluid, albumen and oil, which are always situated at opposite sides or poles.

"In the earliest stages of all eggs, these two poles shade off into each other," but in the perfectly developed egg, the small, or albuminous pole, is surrounded by a membrane, and forms the Purkinjean (germinal) vesicle; and thirdly, and last, the innermost of the three globules is developed. This last is the Wagnerian vesicle, or germinal dot. The oily matter forms the yolk. Thus formed, the egg is the initial animal. It becomes an egg after contact with the male germs (unless the product of organic reproduction), and the egg-shell, or chorion, is to be considered as a protection to the animal, and is thrown off when the embryo is hatched, just as the larva throws off its skin to transform into a pupa. So that the egg state is equivalent to the larva state, and hence there are 4 stages in the life of an insect—the egg, the larva, the pupa, and the imago or perfect insect.

On the anterior end (though sometimes at both ends of the egg), is one or more pores, or micropyles, of exceeding minuteness, through which the spermatozoa (more than one of which, according to Darwin, is requisite to fertilize an ovule), enter to fertilize the egg contents. In some cases these micropyles are scattered over the whole surface of the egg. This contact of a male sperm-cell with the yolk is the fertilization of the egg. From this moment begins the life of the embryo.

Fertilization of the female germ by means of the male sperm, through the congress of the sexes, is the rule with bisexual animals, but there are exceptions among insects. An embryo may start into being without the interposition of the male; to this mode of generation, has been applied by Leuckart, the term *parthenogenesis*.

Packard says: "Among certain species of insects, there are some individuals which, by a sort of budding process, and without the aid of the male element, throw off summer broods, consisting of "asexual" individuals, which, as winter approaches, are succeeded by a brood of true males and females, the latter of which lay eggs."

This phenomenon, called by Steenstrup "alternation of generations," has been observed among a comparatively few species. The individuals in whom this budding process takes place are called "asexual," because, though they may resemble the female sex outwardly, their sexual organs are only partially developed. This budding is the same in kind with that observable in the jelly-fish, which throw off by parthenogenesis or alternations of generations, summer broods of immense extent, but in winter propagate by true eggs.

Huxley has studied the development of *aphis* by parthenogenesis, the anomalous nature of which had previously been discovered by Bonnet, Trembly, Lyonet, Degeer, Kyber and others, and arrives at the following conclusions:

1. Ova deposited by impregnated female aphides in autumn, are hatched in the spring.
2. From these ova viviparous, and, in a great majority of cases, apterous forms proceed.
3. The broods to which these give rise are either winged or apterous, or both.
4. The number of successive broods has no certain limit, but is, so far as we know at present, controlled only by temperature and the supply of food.
5. On the setting in of cold weather, or in some cases on the failure of nourishment, the weather being still warm, males and oviparous females are produced.
6. The males may be either winged or apterous.
7. So far as I am aware, there is no proof of the existence of any exception to the law that the oviparous female is apterous.
8. Viviparous aphides may hybernate, and co-exist with oviparous females of the same species.—(Linnæan Transactions, xxii, page 198).

The origin of the viviparous, asexual or agamic (from the Greek *a*, without; *game*, marriage) individual, as it may be more properly called, is up to a certain stage the same as that of the true egg, *i. e.*, until the germ (pseudovum) of the former is detached from the false ovary (pseudovarium). "From this point onwards, however, the fate of pseudovum is different from that of the ovum. The former begins at once to be converted into the germ; the latter accumulates yolk substance, and changes but little. Both bodies acquire their membranous investment rather late; within it the pseudovum becomes a living larva, while the ovum is impregnated, laid, and remains in a state of rest for a longer or shorter period."—(Huxley).

Siebold has also shown that the ova of the queen-bee produces females or males, according as they are fecundated or not. The fecundated ovum produces a queen or neuter (worker), according to the food of the larva, and the other conditions to which it is subjected; the unfecundated ovum produces a drone. This is analogous to the agamic reproduction of aphis, and demonstrates still more clearly the impossibility of drawing any absolute line of demarcation, histologically between ova and buds.

This method of reproduction occurs among mites, isolated genera of hemiptera, and also several species of lepidoptera have been known to lay fertile eggs without previous sexual union. And the late and lamented Benjamin D. Walsh, of Illinois, observed a species of hymenopterous gall-fly to lay fertile eggs without previous sexual union.

Nicholas Wagner, and also Dr. Leuckart, have observed an asexual reproduction in the larvæ of certain dipterous flies.

"Parthenogenesis or agamic reproduction, is then," says Packard, "the result of a budding process, or cell growth. Metamorphosis is simply a series of marked stages, or periods of growth; and hence growth, metamorphosis and agamic reproduction, are morphologically identical. All animals, therefore, as well as plants, grow by the multiplication of cells."

We have given abundant proof of the fact that agamic, or asexual individuals occur in several natural orders of insects, and might cite the reader to cases where experiments carried on in a practical and satisfactory manner, proved beyond a doubt that parthenogenesis was an established fact in nature, but we deem it unnecessary.

In Mr. R's theory of queen-producing, *i. e.*, workers impregnating the larva with drone semen, etc., in order to give the proper elements of the queen, we consider it unimportant and even unnecessary, and lacking proof; also the manner of producing fertile workers, that is, "fecundating" the "ovary" of the worker through the digestive organs, etc., not only absurd, but contrary to any other rules or laws of physiology. His method of hybridizing—he says, "It is ascertained that the embryo drone, workers and queen, can each be hybridized in the ovary, egg, or larva state, which is communicated to the whole production. I think the evidence conclusive in the reproduction of the queen."

Here we again are compelled to differ with our friend, and call for the "evidence."

In his article of Aug. 15, page 268-9, in the AMERICAN BEE JOURNAL, he challenges Prof. Cook to produce one intelligent apiarist, not barring himself, to explain and prove, beyond a doubt, that drones originate by parthenogenesis.

Now, since parthenogenesis, or agamic reproduction is the production of living individuals, without the actual congress of the sexes, he is compelled to admit the production of drones by parthenogenesis. In conclusion we will quote: "No intelligent scientist will confess that he, in matters pertaining to any science, pins his faith upon some one, or some few observations of his own, and say that others are non-intelligent who are not of the same faith." If Mr. R. is not like Ephraim of old, "joined to the idols," he will have to give in.

Kingston, Texas.

For the American Bee Journal.

A Visit to Mr. Jones' Bee Islands.

WM. F. CLARKE.

To save needless encroachment on the crowded and valuable space of the AMERICAN BEE JOURNAL, let me ask readers of this article to look at a map of Canada, and note the geography of the Georgian Bay, almost a duplicate of Lake Huron, and lying eastward of that vast body of fresh water.

The port of Collingwood should be marked on the map, but if not, let it be observed that it lies at the southerly point of the bay. It is 40 miles from Beeton where Mr. Jones carries on his home apiaries. The Hamilton & North Western R. R. connects Beeton and Collingwood. There is a daily steamboat communication between Collingwood and Parry Sound, 76 miles to the north, during the season of open navigation. Parry Sound is an important lumbering point, and the centre of a new and rising agricultural district. The route between Collingwood and Parry Sound is through an archipelago of islands, varying in size from a dining-table to several miles in extent. These Islands are unsurveyed and unsettled. Very few of them are of any agricultural value.

Mr. Jones has pre-empted 3 of them, and established a great national and continental queen-bee breeding establishment on them. They are called respectively, Palestine, Cyprus, and Italy Island. There are no wild or domesticated bees in all this region, except those transported there by Mr. Jones, for the good and sufficient reason that there is not a *flora* sufficient to sustain a colony of bees. Hence it is the *beau ideal* of a queen-breeding locality. The 3 islands chosen by Mr. Jones are 6 to 8 miles apart, so that intermixture of the races is impossible, unless done on purpose.

THE MODUS OPERANDI.

Palestine Island, 16 miles from Parry Sound, is the headquarters of this business. The steamers pass close to a point of this island, which makes it convenient for shipment. On each of the islands there is a little village of nuclei, with a few full-sized hives, containing chiefly drones. Queen cells are raised at Beeton. All are started in crowded colonies. The young queens are cut out just as they are about to gnaw themselves free from the cells. As soon as they are fairly hatched, they are put into Peet cages with some companion bees, and shipped to Palestine Island. A number are sent in full colonies, needed to replenish the nuclei, and a small proportion are raised on the island. These last are exceptionably good, owing to constant feeding of the large colonies, which are kept at swarming point, but prevented from swarming by constant removal of queens. As soon as the young queens are mated, and commence laying, they are recaged, sent back to Beeton, usually again introduced to colonies, and allowed to lay until shipped; hence they generally go through 2 probations as to laying. As to the extent of the operations carried on, there are about 122 nuclei on Palestine Island, about 75 on Cyprus Island, and 50 or 60 on Italy Island.

MAGNITUDE OF THIS UNDERTAKING.

I had no idea until I visited these islands, how formidable an affair the enterprise was. About 200 full colonies of bees have been sent here, thus far the present summer, and it will take another 100 before the season is over. All experienced bee-keepers know what a great mortality there is among bees, and how short-lived they are during the busy part of the year. To the ordinary causes for this, there must be added here, the prevalence of high winds, and the proximity of water. Whirls of wind carry the bees into the water, and the losses from a variety of sources are so great, that sometimes nuclei have to be renewed every 2 or 3 days. Quite a percentage of queens are also lost.

This fact raises the question whether they do not lower themselves to the ground in the act of mating, and amid the whirl of excitement, find themselves in the aqueous element, before they are aware of it. Five men are constantly employed in carrying on this business. One skilled bee-keeper can tend the nuclei and colonies on all 3 islands, but he must be waited on by an expert sailor, capable of making voyages to the islands, whether the wind be high or low, fair or foul. A sailing yacht is run when there is wind, and a row-boat used when it is calm.

These are stormy waters; a squall is liable to arise at any time; one struck us when yaching to Italy Island, which came within an ace of capsizing us, and only an experienced navigator could manage this part of the work.

At Beeton, 1 man does nothing but raise queens; 2 others are busily enough employed making cages, and nuclei packing and shipping. Every trip to the islands and back costs $6, and the daily expressage amounts to a considerable sum. The bees on the islands gather but very little, and it takes no small amount of honey and syrup to feed them. Bees don't work for nothing and board themselves on these Islands, "by a jug full," rather, by a great many barrels full.

The miscellaneous expenses for material and supplies foot up a large bill.

DOES IT PAY?

Not in money at present. I am well convinced that Mr. Jones could have made more profit by keeping these 300 colonies of bees at his home apiary, and running them for honey and increase. But this thing is only in its infancy, as yet. Its importance will grow in the estimation of all intelligent bee-keepers.

We talk about tested queens. But it is all moonshine; as well talk of tested mares, cows, or ewes. All good stock-breeders know that we must have pedigree as well as points. There must be some guarantee of purity as to breeding. I have seen the first cross of highly pre-potent males, that gave cattle irreproachable as to points. But for want of pedigree, the next generation would hark back toward common stock. It will be so in regard to bees. The mix of new races has done immense good, but in the long run, we must have somewhere, a fountain of purity. We have got it in Jones' islands, and nowhere else at present. Probably other similar establishments will be started, but it will take money and pluck to do it.

I predict that the price of absolutely pure queens will rise in the market, instead of falling. It will be as with short-horns among cattle; notwithstanding the multiplication of this breed of cattle, pure-bred specimens from choice families were never so high in the market as they are to-day. It will be so with absolutely pure-bred bees. Unless we discover how to mate queens in confinement (which I for one am not sanguine about), our colonies will deteriorate, and we shall have to breed up from time to time, from a source of infallible purity.

I think I detect a little weakening in Mr. Jones. He says he would not go on with this thing but for the determination to have the very best stock in his own apiary. Every other advanced bee-keeper will form the same resolve. We cannot afford to let Mr. Jones get discouraged; at any rate, not until somebody else is prepared to take his place.

From a careful inspection, both of his breeding and home stock, I think he has got it to a high pitch of excellence. He must be patted on the back and cheered onward. We cannot afford to recede.

If I were Mr. Jones, I should be willing, for a time, to take some of my pay in the honor of the thing. He is playing a lone hand which must win, and there is a card up his sleeve called *Apis dorsata*, that is pretty certain to be a strong one when he gets it into the game, which he is determined to do, regardless of cost. Every true apiarist will say, "Success to him!"

THE COMING BEE.

It is too soon to predict what this will be. We shall probably get it by judicious crossing. The short-horn, which now leads the cattle tribes, was obtained by a series of crosses and breeding for points, till valuable characteristics got fixed.

We shall develop the bee of the future in the same way. There will be careful comparison, and the "survival of the fittest," until we reach the acme. At present, the Holy Land bees and their crosses are without doubt, the regal race. For prolificacy, hardiness, industry, gentleness, they are A 1. There are strains of Italians that are not far in the rear, and are well worthy of perpetuation. I am not enamored of the Cyprians, whatever their other good qualities may be; their temper is unamiable.

I had the pleasure of seeing a Cyprian colony make Mr. Jones beat a hasty retreat. It was a pleasure, because he redicules my veil, which enables one to stand their ground, while he was forced to flee. We do not yet know what hybridization will accomplish, nor has *Apis dorsata* yet appeared on the scene. The editor of the AMERICAN BEE JOURNAL has proclaimed *Apis Americana* the coming bee. But, Mr. Newman, "bide a wee." Possibly, *Apis Canadensis* will win the laurels! I will even forgive length of dagger, if *Apis dorsata* will bring us length of ligula. The coming bee must gather the honey crop of the red clover for us. Then, how we shall revel in liquid sweetness!

MISCELLANEOUS REMARKS.

Any one who goes through these breeding apiaries as I have done, will not fail to perceive points of distinction among the 3 great races, now before the apicultural world. I am inclined to think the Palestine race the bee primeval, and I subscribe to Mr. Jones' eloquent outburst, which I suspect he was rehearsing for the next convention, somewhat on this wise:

"Behold, the bee which the Lord God made when he created the heavens and the earth: the bee that stored honey in the carcass of Sampson's lion; the bee that made Canaan a land flowing with milk and honey; the bee that gathered the tempting sweet, which nearly cost Jonathan his life; the bee that buzzed around King David; the bee that fed John the Baptist; the bee that furnished honey comb for the risen Saviour's meal, beside the sea of Tiberias," etc.

My visit to the islands has impressed me with the importance of raising high-class drones. I never saw such handsome fellows, as were many of those delegated to perform hymeneal service at this breeding establishment.

Mr. Jones, in a quiet way, is paying a large amount of attention to drone-rearing, and I think he is right. In breeding other stock, the importance of securing the best males is fully recognized. I doubt not we shall find that the same law holds good in apiculture.

Finally, there are several points connected with the work that is going on at these islands, which may fitly engage the best thoughts of the assembled wisdom at the approaching annual meeting of the North American Bee-Keepers' Association.

I only wish that every member could visit these islands in advance of the meeting. That being impossible, I hope this narration may do something toward producing the impression, that a most important enterprise is in progress, which we shall do well to promote in every practicable and reasonable way.

Listowel, Ont.

* * *

American Farmer.

September Work in the Apiary.

C. H. LAKE.

If no surplus honey is stored in the boxes early this month, remove them and put on the honey boards, mats, or top covering to frames. Usually the honey flow is great in many localities during this and part of next month, and oft-times the unfinished sections and combs in the super-boxes will be readily filled up with honey from the fall flowers. In such locations it is advisable to leave at least one box in position, to be looked at occasionally, and if occupied by the bees and the appearance of newly gathered honey, increase their storing capacity by adding one or more boxes containing the unfinished combs as they will be occupied, while new foundation or empty frames will scarcely be looked at by the bees.

Drouths prevail in many localities, and the bees show no disposition to visit the fields in search of nectar. Feed sparingly in such localities, and regularily every night, and keep the entrances of all weak colonies contracted that no robbing may take place. Look through every hive carefully, and know their exact condition by the middle of the month. If not at least 20 lbs. of honey sealed in the combs, feed during the latter days to the required amount; 25 pounds to a prosperous colony is all that is required in ordinary winters. No queenless colonies should be kept beyond this month in any case, unless where fertile queens are expected to be introduced. As queens are usually cheap at this season, it is a good time to re-queen. Young laying queens introduced during this month will, if properly managed, build up colonies, strong in young bees, to go into winter quarters.

Keep no old queens; a young, vigorous queen will build up much faster for winter than queens known to be over 3 and 4 years of age. Equalize by taking brood from the extra strong and giving to the weak; but be careful and give the weak no more than they can cover and raise, or they will perish, and you will be at a loss.

Great care is required in building up small colonies to winter. To unite small colonies, smoke them well; then sprinkle thoroughly with sweetened water, scented with peppermint, anise or bergamot; shake the bees altogether into an empty box. Take the combs containing all the brood, and those with the most honey to fill the hive. Pour out the bees before the newly prepared hive; sprinkle again; when all are in, set the hive about equal distance between where the two hives formerly stood.

It is the safest to cage the queen for 24 hours, as the strange bees might attack her; but after they miss their own, they will readily take to and protect their "stranger mother." Make all preparations this month for the winter; prepare your top packing, mats, quilts, cob boxes, chaff cushions, or whatever you have decided to use, and have all in readiness for the time coming.

Remember the essentials of successful wintering is doing early what should be done, and then perfect quiet. From the sad lesson of the past winter many have "determined not to be caught that way again." See to it early, then, or a like experience may be the result.

Attend the fairs and examine the bee departments; and contribute to the same, thereby encouraging and stimulating this branch of industry. Much valuable information can be obtained by a close inspection of the various contributions. Attend all the conventions, when convenient, and get up "Bee Keepers' Clubs," if possible, in every neighborhood, where but even a few are engaged in the pursuit, and much information will be gathered from this source, during the many winter evenings pleasantly spent in discussions.

Subscribe for the bee periodicals, if you are not already a subscriber, and read carefully the various reports of our most successful bee-keepers. Profit by their experience in wintering and the general management, and your success will be sure to follow. But go into winter quarters with only strong colonies, with vigorous queens.

"Keep all colonies strong."—*Langstroth.*

Baltimore, Md.

* * *

Bee Keepers' Guide.

Co-operation Necessary.

GEORGE W. HOUSE.

As compared with other branches of industry, Apiculture has been sadly neglected, as far as the marketing of our products is concerned. It is true that much progress has been made during the past few years in putting our products upon the markets in the most desirable shape, and that too, so as to attract attention and tempt the consumer to purchase, until at present American honey is finding its way on the tables of many thousands of families, where until recently its utility and value was wholly unknown. Thus we are keeping pace with the times and other kindred pursuits.

Our various publications devoted to apiculture, have been the mediums and beneficial factors in bringing this about, and to their editors, American apiarists owe a vote of thanks, if nothing more.

Now that all this has been accomplished, it is our duty to put forth our energies in other directions, *viz:* "Securing accurate statistical reports," and "The concentration of our products on the various markets." To accomplish this, will require much diligent and earnest work. We must have the aid of all our periodicals and associations throughout the country. In fact each and every one should work understandingly and co-operatively.

Co-operation, and a unity of action are the monstrous mainsprings of power and progress. Associated effort is destined to revolutionize the business operations of the world. Is there *one* who has failed to notice the wonderful results that have been accomplished by associated action, and a combination of interests.

Think of the astounding results that have been accomplished by the associated system of dairymen. What co-operation has done for dairying and other branches of agriculture, it may also accomplish for apiculture. But there must be a commencement. Then let us all apply ourselves diligently to the task before us, until we have surmounted the obstacles, and have placed apicultural products on an equal, or a higher footing (as compared with other branches of industry), and unfurl our banner.

But it is important to consider the barriers to be surmounted, before success can be achieved. In the past, many bee-keepers have been in the practice of sending their honey to hundreds of commission houses in our large markets. A great many times consignments find their way into the hands of firms making specialties of butter and cheese, potatoes, and grain or flour and feed, and in nearly every such case you will find that honey piled up outside the door, begging for sale; and why? Because they have never handled honey; they do not know its market value, and they do not want it sitting around where it will surely get broken by the carmen that are wheeling in and out such vast quantities of produce. Now what are the results from this state of things? The firm not having the facilities for handling honey do not want it around in the way. It must be sold at once, or they will quote it as nominal. A buyer comes along, and about the following conversation will take place:

"Wish to buy?"

Buyer: "Perhaps, if prices suit."

Commission Merchant: "What is it worth to you? Make me an offer."

The offer is made and the honey sold at the buyer's own price. The firm take their commission, etc., and the sacrifice is made at the producer's loss.

All this is wrong; such transactions are the causes for the depression in our large markets, which work ruin and disastrous results to the producer, while he himself is the one at fault. The buyer passing along the street in our large city is amazed at the large offerings in honey. He thinks there is a heavy yield in the country, and the markets are being glutted with a flood of honey. While if the same amount of honey was confined to 2 or 3 good business houses making a specialty of our products, the buyer would be making inquiries for honey, and not afraid to buy at good fair prices, because the offerings would not be so free, thus having a tendency of depressing the markets. Furthermore, when we can *concentrate our honey*, we shall be able to sell for cash, and we shall see buyers traveling the country to purchase it, as they do now with butter, cheese, and other products. The buyer would feel safe in purchasing, because he would be confident that our products would not be scattered among the many various commission houses, who could cut the prices at the producer's expense. The apiarist too, could place more confidence in the business, because our products would have a fixed cash value, fluctuating in price but little, if any, and always in accordance with the supply and demand as with all other kinds of produce.

In perfecting *concentration*, we must instruct, and look after the unexperienced, and those making the business a side issue. To accomplish this successfully, we must have the aid of our various publications. I trust we shall soon see our weekly (the AMERICAN BEE JOURNAL), and our monthlies (the *Guide, Instructor, Gleanings*, and *Magazine*), all enlisted in surmounting this great stumbling block.

The importance of this question cannot be too strongly urged, or imprinted on the minds of every bee-keeper.

After a careful investigation, we should select 2 or 3 of the most reliable firms in each of our large markets. Our journals should advise their readers of the selection made, and then let us one and all stand by the text. I would suggest for New York, the names of Thurbers & Co., and D. W. Quinby. For Chicago, A. H. Newman, R. A. Burnett, and W. F. Conner. For Cincinnati, C. F. Muth. If any bee-keeper knows of better firms, he should make it known. Bee-keepers that are posted in relation to other large markets, would do well to give us the desired information.

Another important factor to accomplish success, is, accurate and reliable statistical reports regarding the yield of both comb and extracted honey from all the States, in time for September journals, at the latest. In this, a weekly journal can be of much value, as we might obtain the desired information in many instances, in time to accept or refuse an open offer.

At the coming Convention of our North American Society, I trust they will take this question into consideration, discuss it thoroughly, and take immediate action on the conclusions arrived at. I know of but one way to accomplish the desired object, and that is through our National Society. The President should appoint energetic Vice Presidents for every State. They in turn shall demand of each and every Secretary of the different Associations within his State, to collect the correct reports of the yield within his territory; to report the same to the Vice President, who shall report to the Secretary of the National Association, and he be required to cause the same to be published in all the journals, no later than Sept. 1. There should also be a unity of action in all our State and local Associations. They should instruct their members to report to their Secretaries, promptly and accurately. We must have co-operation if we wish to promote and protect our interests. and compete with other branches of industry.

Fayetteville, N. Y. Aug. 20, 1881.

For the American Bee Journal.

Rocky Mountain Bee Plant—Cleome.

T. J. DODDS.

Dr. Keene, in the BEE JOURNAL for August, asks for information as to the best plan of raising this plant. Your note in answer thereto is good, but not correct. Here, in the streets of LeClaire. Scott county, Iowa, the plant is growing in all its splendor. and has been for several years past. In quantity and area of occupation it is rapidly on the increase, and in appearance it is indeed beautiful and pleasing to the eye. Its advent here was in this wise: A returned prospector from Montana, some 12 years ago, brought a few seeds and presented them to our now worthy Mayor, R. A. Edwards, as the seed of a beautiful flowering shrub. These were planted and carefully nursed until the second season, when they blossomed beautifully, but their peculiarly offensive odor made them objectionable, and they were plucked up and thrown into the streets. But like Banquo's Ghost, they "would not down." The seeds, carried by the winds and wash of the streets in all directions, took root and prospered, and to-day the sides of our not-much traveled streets are adorned with the bee plant in luxuriant and abundant growth—a great improvement on fennel, jimson and ragweed.

All that Dr. Keene says about it as to its honey-producing qualities is correct, as is fully demonstrated here by the constant appearance of the honey bee from morn till high noon.

Its *habitat* is clay, gravel, rock and limestone. Our river bluffs are carbonate and magnesian limestone, our streets and gutters are Macadamized and paved with this stone, and in this the bee plant finds its most attractive home. Hundreds of plants can be counted in sight by the writer of this, that will measure 5 feet in circumference and 5 feet in height; how is that for your 30-inch drills and 6 inches apart? Before commencing this article, through curiosity and to be able to speak from actual knowledge, I went across the street and counted the pods on one stalk alone out of hundreds of the same kind all around. They numbered 272; the space occupied was 5 10-12 ft., height 5 8-12 feet, circumference of stalk 1¼ inches. No rain here for nearly 3 months, yet they are green, luxuriant and beautiful. No animal will touch them, and they outgrow everything they come in contact with, thus proving the "survival of the fittest." Sow the seed anywhere—among rocks, on craggy hillsides, along the highways, in fence corners where nothing useful will grow, and where the winds and rains will spread them, and in a few years your waste places will prove attractive to the eye, and yield abundance of sweets for the table.

LeClaire, Iowa, Sept. 1, 1881.

[Mr. Dodds has our thanks for his very interesting article, which our readers will appreciate. We have never seen it growing so luxuriantly as he describes; but if we had, we would not modify our advice regarding planting distance in the drills, as not every seed sown will grow, nor will the majority. It is much easier to cut out a stalk here and there, if necessary, than to replant.—ED.]

Western Stock Journal.

Management for September.

O. CLUTE.

The long continued drouth has, in some sections, cut off all hope of a fall honey harvest. During the last of August bees should be gathering honey rapidly from buckwheat, heartsease, Spanish needle, golden rod, asters, etc. But this year the dry weather has cut off most of these flowers so badly that the bloom is very light, and but little honey is coming in. Some of the hives are storing a small amount of surplus; others are getting scarcely more than is needed for brood rearing.

Probably the most profitable thing for every bee-keeper, is to see that his hives are now put in good condition for winter.

1. See to it that there is plenty of honey in the brood chamber for the bees to winter on. About 25 lbs. is the amount needed. This should be good sealed honey.

2. Contract the hives to 8 frames, and put in the division boards. This gives smaller space for the bees to keep warm during the winter.

3. Have the covering of the frames fit close and tight, so that there are no currents of air passing upward through the hive.

4. It is a good plan to cut a winter passage through the combs, about 2 inches below the top bar. A hole half an inch in diameter will do. This gives the bees a passage from comb to comb, without going around the side of the frame. Hence in cold weather, when the bees are closely clustered between the combs, they can go from comb to comb through these passages, and so reach honey which would otherwise be inaccessible. Two small strips, a foot long, ½ an inch wide, and ¼ of an inch thick, laid ½ an inch apart across the tops of the combs, will answer the same purpose.

The bees that live over winter and start work in the hive early in the spring, are the young bees that are hatched in the fall. Now if no honey is coming in during the fall, the queens stop laying, brood rearing ceases early, and the bees go into winter quarters with none but old bees in the hive. These naturally die off during the winter, or in early spring, before young bees are reared in their places. This is one of the causes of much of the disaster in wintering. The remedy is to feed the hives a small amount each day for two or three weeks after honey gathering ceases. They can be fed at night, by putting the feeders into the rear end, or into the top of the hives. Two ounces of sugar made into a thin syrup and fed to each hive daily until after Oct. 1, will insure a good quantity of young bees in each hive.

With plenty of honey, plenty of young bees, and a small warm hive, the bees are in a good condition to withstand the most rigorous winter.

It is a good plan to provide now for doing good work with the bees another year. To this end the bees should be Italianized. Those who have already Italian bees can testify to the superiority of this breed. Those who have black bees should now prepare to Italianize next summer.

One method of Italianizing is to buy of a queen breeder a fertilized queen for each hive, and introduce her. As soon as she is accepted the work is done. All bees produced from her eggs will be Italians. Soon all the old bees will die off, and the young yellow-backs will take their places. But this method is somewhat expensive, and we do not advise it. It is much cheaper, and wiser, for the bee-keeper to buy 1 good Italian queen, introduce her now to a good colony of bees, and then another year grow queens from her eggs for all his hives. Of course the queen can be bought next spring, but often it is not so easy to get them in the spring. Moreover, as they cannot be sent out by mail or express until the weather is somewhat warm; your operations in queen-rearing in the spring will be somewhat retarded.

To buy an imported Italian queen from a reliable importer is a good way to begin. In our apiary we have 2 queens of Dadant's importation. One was bought in 1880, for which $8.00 was paid; and one bought in June, of this year, for which $4.00 was paid. From these queens and their progeny we have reared all our queens.

But it is hardly necessary now to get an imported queen. The Italians that have been carefully bred in America, are fully equal to their ancestors in Italy. A good, home-bred Italian queen will Italianize an apiary just as well as an imported one, and can usually be bought for about half the cost of an imported one. Good tested, home-bred Italians can be bought at from $2.00 to $3.00. Untested queens can be bought for somewhat less.

Having got your queen, whether imported or home-bred, put her in a small wire-cloth cage, made by rolling up a small piece of wire cloth about 4 inches long, and putting a plug into each end. A short piece of corn-cob makes a good plug. Put the queen in the cage, then select the hive in which you desire to put her, smoke it, open it, blow smoke on the tops of the frames if you are much afraid. But it is best not to smoke much, for it makes the queen hide. Then lift out the frames one by one, and examine each for the queen. If not on the frame, set it in an empty hive at one side, and go on to the next, and so on until the queen is found. When found, kill her. Then put your Italian queen between two combs, pressing them against the cage, so as to hold it in place. Shut the hive and let it stay shut for 48 hours. Then open, smear the cage with honey, take out one of the plugs and smear honey on the open end of the cage; set the honey running by drawing a knife over the honey near the cage. The queen will come out, and the bees, busy with honey, will accept her for their queen. Often the introduction can be made in 24 hours, and without so much trouble to smear with honey. But for a beginner the course here recommended is safer.

Iowa City, Iowa.

For the American Bee Journal.

Ants in the Apiary.

A. B. MCLAVY.

The remedy I use strikes at the root of the trouble, and if persisted in for a short time, will effectually remove them.

First, with a weeding hoe clear the ground in and around the yard of weeds and tufts of grass; now, in a day or two, the ants will have established a trail from their beds to the hives. By this means you can readily trace them home. Now to a five gallon can of water, add say, 10 ounces of cyanide of potassium; let it dissolve. Now with a trowel dig gently in the ant-bed until you find the nest, which will be known by the white eggs. Then pour on your water, and make the dirt into a thin mud, right in the nest, and pour the water on plentifully, so as to effectually poison the very earth. By this means you dispose of ants and queen ant, and unfit the larvæ for reproduction. You may miss destroying it the first trial, but you will eventually clean them up. Keep the cyanide of potash out of reach of children, as it is a violent poison. It retails at the drug stores for about $1 per lb.

I would thank you to tell me why a young queen which has 2 or 3 combs of brood, with the combs built from worker foundation, lays drone eggs here and there in the brood nest, right among the worker cells. I have one which has some 13 drone cells capped in the worker comb. She seems to be prolific, and her bees are nice workers. They do not seem to have bargained for the drones, as I found one, upon lifting the frame out, tugging manfully at one poor drone which was not capped, and, as I lifted the comb clear of the hive, off it went with its load.

Allow me to express my own thanks (with those of others), to Prof. Cook, for his valuable contributions to your columns. They are always to the point, and invaluable to the bee-keeper. I wish the BEE JOURNAL wealth and prosperity.

Bastrop, Texas.

[The laying of drone eggs in worker cells is of frequent occurrence, especially with queens that are tardy in mating.—ED.]

For the American Bee Journal.

Improving Honey Plants.

D. K. BOUTELLE.

For several years past, much has been said in the bee-papers in relation to securing honey from red clover. Some have proposed lengthening the tongues of the bees, while others have talked about shortening the corollas of the clover. In the last weeks' BEE JOURNAL, Mr. Dadant recommends going at the business "both ways." That is it exactly; breed both ways. I now have a recollection which may possibly throw a ray of light in the clover direction.

From some 50 to 60 years ago, when a boy, my home was at Westminster, Vt., by the banks of the Connecticut river. I remember that the farmers in that vicinity used to raise a kind of red clover known as the "Darby clover," sometimes called "early clover." They liked it, they said, for these reasons:

1. The straw being finer than the old or large clover, made better hay for stock.

2. It was ready to cut two weeks earlier.

3. By giving it a sprinkle of plaster of Paris, they got a good second crop.

I remember, too, that it was said to have been obtained by a man by the name of Darby, by selecting the earliest, smallest heads, and then from clover grown from the seed of these, selecting the earliest and smallest again, and continuing to do so several times. I remember that they got heavy crops of this kind.

Now if such a clover can be very generally raised, with equal or greater profit to the farmers than the coarser kind, and have it bloom two weeks earlier than the white, and then get a second bloom after the white has passed, and have the bees breed up, and the clover down until they match, it would be a nice arrangement.

I have little, or no doubt it may be accomplished. It is probable then, that the clover, if put on rich soils, may tend to a reversion towards its former large size; but an occasional selection of the smallest may be made so as to keep it down, and so of the bees to keep them up in size and length of tongues. Let it be tried.

Lake City Minn., Sept. 3, 1881.

CONVENTION NOTES

Kentucky Bee-Keepers' Association.—The second annual convention of the Kentucky State Bee-Keepers' Association, will be held in the Exposition Building, in Louisville, Ky., on Wednesday and Thursday, Oct. 12 and 13, 1881. The following is the programme: Wednesday, Oct. 12.—Addresses as follows, to be followed by discussion:

1 to 5 p. m.—"Manner of Transferring Bees, and When to Do It;" W. T. Sears, Bowling Green, Ky.

"Should We Encourage All to Keep Bees, or Only Those who will Make a Specialty of Bee-Keeping;" Dr. E. Drane, Eminence, Ky.

"The Pleasures and Profits of Bee-Keeping;" James Erwin, Claypool, Ky.

7 to 9.—Receiving new members. Miscellaneous business.

"Foul Brood, Prevention and Cure;" Chas. F. Muth, Cincinnati, O.

"Honey Producing Plants, and How to Cultivate them;" W. T. Stewart, Eminence, Ky.

Thursday Oct. 13, 9 to 12.—Report of nominating committee. Election of officers and installation.

"Sacred History of Honey and Bees;" Rev. L. Johnson, Walton Ky.

Essay (subject not yet selected); Dr. J. P. H. Brown, Augusta, Ga.

"The Several Races of the Honey Bee, their Relative Merits, etc;" G. W. Demaree, Christiansburg, Ky. Mr. Demaree will illustrate his essay by an exhibition of Cyprian, Italian, and other queens and bees.

Louisville being the metropolis of Kentucky, the Exposition being in progress, cheap round trip tickets are sold from every rail road point in the State, the bee-keepers can make their visit to the Exposition at the time the convention is held, and assist in making the society a credit to the State. A fine display of bee-keepers' supplies, honey, etc., is expected, and some of the most prominent bee-keepers in America, who will be in attendance at the National Bee-Keepers' Convention, at Lexington, Oct. 5, 6, and 7, are expected to attend. All are invited. N. P. ALLEN, *Pres.*

☞ Owing to the fact that the time of the regular meeting of the Union Bee Association, at Shelbyville, Ky., conflicts with the time fixed by the executive committee, to hold the National at Lexington, the meeting of the Union, at Shelbyville, has been postponed till the 20th of October.

G. W. DEMAREE, *Sec.*
Christiansburg, Ky., Sept. 3, 1881.

☞ The Rock River Valley Bee-Keepers' Convention, will be held at Monroe Center, on the third Tuesday in October. We hope a good attendance will be the outcome, and the bee interest revived.

D. A. CIPPERLY, *Sec.*

☞ The time selected by the Executive Committee for holding the National Convention, at Lexington, Ky., is October 5, 6 and 7, 1881. All bee-beepers are invited to attend and take part in the deliberations of the Convention. As Lexington is a central point, the Executive Committee hope to have a large attendance from the North, South, East and West, and from Canada, and that the 12th annual meeting of the North American Bee-Keepers' Society will be the most interesting meeting that the bee-keepers of the United States have ever held.

N. P. ALLEN, *Pres.*

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.

N. E. FRANCE, *Sec.*, Platteville, Wis.

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. MILLER, M. D., *Pres.*

C. C. COFFINBERRY, *Sec.*

☞ The Western Michigan Bee-Keepers' Association will meet in Berlin, Ottawa, Co., Mich., Thursday, Oct. 27, 1881, in Huntley's Hall, at 10:30 a. m. All interested, are cordially invited.

WM. M. S. DODGE, *Sec.*
Coopersville, Mich., Aug. 29, 1881.

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. GOODNO. *Sec.*

Bee-Keepers' Union.—The Eastern New York Bee-Keepers' Union Associatton, will hold their eighth semi-annual Convention on Tuesday, Sept. 27, 1881, at 10 a. m., at Knowersville, N. Y. All bee-keepers are invited to attend. W. D. WRIGHT, *Pres.*

N. D. WEST, *Sec.*

☞ The South Eastern Mich. Bee-Keepers' Association, will hold its 4th meeting at the Court House, in Ann Arbor, Wednesday, Oct. 5, 1881, at 9 o'clock a. m.; the week of the County Fair. An adjourned meeting may be held during the week. All interested are invited to attend. By order of the Executive Committee.

N. A. PRUDDEN, *Chairman.*

☞ The North Eastern Wis. Bee-Keepers' Association, will hold its fall meeting at Peewaukee, Wis., on Tuesday and Wednesday, Oct. 11 and 12. A full attendance is cordially requested. Notice of the plauce of meeting will be found at the local Post Office.

GEO. CHURCH, *Pres.*, Neenah, Wis.
FRANCES DUNHAM, *Sec.*, Depere, Wis.

South Western Iowa Bee Association.—The regular annual meeting of this association, will occur at the apiary of James T. Fife, in Jasper township, near Corning, Iowa, on Thursday afternoon, Sept. 29. The place of meeting is such that the topics considered will be practically demonstrated. Following is the programme: Business of Society; raising of queens; introduction of queens; dividing of bees; practical handling of bees. A full attendance is desired.

J. T. FIFE, *Pres.*
W. J. OLIVER, *Sec.*

☞ The Eastern Michigan bee-keepers' Association will hold its fall meeting in Detroit, Oct. 4, in the Y. M. C. A. hall, at 10 o'clock a. m.

A. B. WEED, *Sec.*

SELECTIONS FROM OUR LETTER BOX

Bees Doing Well on Fall Flowers.—There are 25 bee-keepers in this township, 6 miles square, and I think that I am the only one who takes a bee-paper. I do not see how any earnest bee-keeper can, after seeing a copy of the AMERICAN BEE JOURNAL, forego the pleasure of receiving such a journal as yours once a week. I find more useful information in an issue of the BEE JOURNAL, than in any of the monthlies. I admire the fairness with which you treat the theories of different writers on disputed points. I had but 2 colonies to commence with in the spring; have taken some honey, and increased to 6, and should have increased to 10, had I not been disappointed by the queen-breeders. Out of 4 ordered, I received 1, and she lays but a few dozen eggs daily, while one of my own rearing fills a Langstroth frame in 24 hours. My bees have done well during May and June; they filled up nicely with dandelion honey of extra quality, and then worked on red clover till the 1st of July, when the drouth cut off all honey. White clover seemed not to yield honey; I did not see a dozen bees on white clover this summer. During this month they have done well on buckwheat, smart-weed and golden rod. They are crowding out the queens with honey (I have no extractor yet) and cannot be induced to work in sections, even at the sides, though I use bright foundation and white comb in the sections. I hope that the BEE JOURNAL may prove a great success financially, as it is practically. M. E. DARBY.

Dexter, Iowa, Aug. 30, 1881.

Cheap Foundation Machines.—Please answer the following questions: Have you ever seen any of the foundation machines advertised in the BEE JOURNAL, price, $5.00? It seems to me if they were all right they would be just the machine for a small apiary of 50 or 100 colonies; I would like to hear from some one who has seen them. Would it do to sow sweet clover with wheat? We are having very dry weather here now, and should it continue till late in the fall, would it not be best to wait till spring before sowing? How much seed per acre?

JOHN CRAWFORD.
Pleasant, Ind., Sept. 1, 1881.

[We have not seen the machine, and know nothing more of them than the advertisement says. Undoubtedly sweet clover will do well sown with wheat. Plant it this fall, 6 to 8 pounds per acre.—ED.]

California Honey Crop.—The honey season in the 3 lower counties, which are the the main honey producing counties of the State, are nearly a failure; the only apiaries that have taken any surplus, as far as I can learn, are located on the south side of the Sierra Madre range, and are but about 15 miles in length, extending 2 miles west of the San Antonia Canon on the west, to Lytle Creek on the east, and will, taken all together, average about ⅔ of a crop. Honey here is bringing a good price, but is mostly amber colored, the amount of white sage honey being very small. The amount of honey in this neighborhood is about 50,000 lbs., most of which is still held by the producers.

A. A. DEXTER, JR.
Cucamonga, Cal., Sept. 1, 1881.

832 Pages for $2.—I have received a lot of the special edition of the BEE JOURNAL for 1882, and I am well pleased with the change; it gives us more reading matter, and will be in a more convenient shape for binding and preserving. It will be the cheapest book on bee literature extant. 832 3-column pages, quarto size, for $2, and 1 number is well worth the subscription price. I will send you about 100 names to whom you may send sample copies of the AMERICAN BEE JOURNAL. I am trying to awaken an interest in bee culture in Texas, and hope by the coming spring every bee-keeper who has enterprise enough, will take a bee periodical of some description. I wish you a success in all your undertakings.

WM. R. HOWARD.
Kingston, Texas, Sept. 1, 1881.

[Dr. Howard's compliment is very gratifying; and such articles as he has given us, help to earn it.—ED.]

Dried to a Crisp.—We have had over 2 months without rain, and all vegetation is dried to a crisp. The country is now suffering, and the poor must suffer greatly during the coming winter. W. S. RAINEY.

Columbia, Tenn., Sept. 1, 1881.

Hopes Revived.—My hopes revived this morning when I noticed my bees were hard at work, coming in heavily laden with honey and pollen. Wishing to know where they obtained it, I went to the slough and creek, which are ¼ to ½ a mile from my apiary. I was surprised, when I reached the flat, bottom fields, to find my bees gathering pollen and honey from cockle-burr blossoms, which were so thick that a person could hardly walk through; it was covered with bees, and there was plenty of the broad Spanishneedle and some boneset in bloom, but there was not a bee on anything but the cockle-burr, except a few on the rank horse-weeds. I was not aware that bees would gather pollen and honey from it. What are its merits, and is it good for the bees? I inclose a twig that grows in clusters near my apiary, and is just beginning to bloom. I noticed last year that it blossomed till frost, and the bees abandoned everything else for it just before frost. Tell me its name and value as a honey plant. As there are two kinds of Spanish-needle (flat and round) please tell me if there is any difference in their value as honey producers, and their proper names. Prospects are better to-day. No rain yet; not so hot, and a little cloudy. I am glad we are to have the BEE JOURNAL next year in such a handy form. R. M. OSBORN.

Kane, Ill., Sept. 1, 1881.

[Mr. Osborn need not be surprised that cocklebur (*Xanthium*) yields nectar, as nearly all the composite plants do so more or less, while many yield most bountifully. The twig inclosed is from another plant of the same family. It is an aster. I think that all species of *Bidens* (beggarticks) yield honey. There are five species.—A. J. COOK.]

My Experience with Bees.—I had kept bees (are rather let them keep themselves), about 30 years. In January, 1879, I bought a copy of Cook's Manual, and read up the subject through the winter. In June, I took 3 box hives and went to live with a man who had an experience of several years, and had the reading of the AMERICAN BEE JOURNAL. I increased to 12, wintered in the cellar, putting them in Nov. 1, and took them out April 1, 1880, alive, but weak. They kept dying until I had but 4 left. I increased to 8, but obtained no honey from them; but they had enough for wintering. I had 1 colony stolen, bought 1 in its place, left them on the summer stands, last winter, making outside hives; the sides, 3-inch space, I filled with chaff; in the spring I had 5 left, but weak. I bought a weak one, increased to 8, and extracted 245 lbs. of white honey, leaving them in good condition for winter. I took 2 box hives on shares, last spring, have increased them to 8, and extracted 150 lbs. of white honey. Unless I see some plan, before putting them in winter quarters, that I think would be better, I intend to put them in the cellar and put the chaff hives around them, when I put them out in the spring. CYRIL J. ASSELSTINE.

Lyn, Ont., Sept. 3, 1881.

Extracted Honey in Canada.—Bees have been doing nothing since the last of July, owing to the protracted drouth; everything is withered. I increased from 55 colonies in the spring to 97, and took 3,000 lbs. extracted, and 300 lbs. comb honey. Grocers and the public are getting very suspicious of buying extracted honey in Canada, as some has been placed on the market in an unripe condition, and afterwards fermented; others have no faith in the purity of extracted honey, and won't have it, as the public won't buy it. There will be a very fine display of honey exhibits and apiarian appliances, at the Toronto Exhibition, next month.

I. C. THORN, M. D.
Streetsville, Can., Aug. 31, 1881.

Dwindling.—I had a small second swarm the first part of June, which I put in a Langstroth improved. As I was moving from that part of the county, the bees were removed half a mile. I went to see them and others which I left about the 12th of July. They appeared to have decreased considerably. I took the top box of another, and drove the bees from that into the weak hive. They appeared to be doing better for some time, but of late they seem to be decreasing. A large swarm which came out about 3 weeks ago was added a few days since. They have plenty of combs but no honey, and in order to winter them they must be fed. I see Prof. Cook recommends coffee A sugar. I do not know it by that name; is it the common 8c. sugar? Can you recommend a simpler feeder than that which Prof. Cook describes? I am in a country where the old straw "skep," as they call the hive, is in use. Their method is to kill the bees in the fall, and those they do not wish to treat so cruelly are left on the summer stand, without more protection or care than in summer. I wintered but two colonies last season, which were the first I ever had. What was the cause of the dwindling?

J. Roadhouse.

Lakefield, Quebec, Aug. 17, 1881.

[Your moving the swarm but half a mile would cause the dwindling, as most of the field-workers probably returned to the old location; it is also probable the queen is worthless—she should have filled the hive with brood after the first dwindling occurred, and you should have investigated her value when you examined the hive in July. Coffee A sugar is the best grade, and next to granulated in price. It is preferred, because less liable to contain glucose, and is easily dissolved. The simplest feeder is an old fruit (or similar) can with the top removed, fill with sugar syrup or honey, tie a cloth over the mouth, place two square half-inch sticks on top the frames, and invert the feed cans on these.—Ed.]

The Drouth—Cyprian Bees, Etc.—The drouth continues all over our state. In the most favored localities, the corn and hemp crops are cut at least 50 per cent. below the average, and the tobacco crop is nearly ruined. In many places the condition of things is simply desperate. Our fine blue grass pastures would burn like a flash. Stock water is failing rapidly; no rain, no dews. The case of the poor honey bees is gloomy indeed. Not a flower is to be seen in the land, except the tough iron weed. Few colonies will live to see the flowers open next spring. Of course progressive bee-keepers will feed those under their care. I am now feeding 6 or 7 colonies that have come to want at this early stage of the game. I would like to reject the doctrine of "parthenogenesis" if I could find a more reasonable theory. The substitute offered by Mr. C. J. Robinson, is simply monstrous. Sexual impregnation through and by means of the digestive organs, is too unreasonable and improbable to entertain a single thought. It is even worse than blind parthenogenesis. Mr. Dadant's evil report concerning his Cyprian bees, imported "by way of Italy," don't sound well after advertising and selling them. I suspect that he has got them mixed with those "gentle dark Italians" of his. If I wanted to breed up a game race of bees to engage in a prize fight, I would commence by crossing the Cyprians with Mr. Dadant's "dark Italians." The robust Cyprian joined with the ferocious "dark" hybrids, would culminate in just such a storm as friend Dadant describes. In justice to the Cyprians, I wish to say that I have handled them for a year past, imported stock, and crossed with pure Italians, and although they have a rather dangerous, inquisitive appearance when the hive is first opened, if handled gently, they submit nicely. My Cyprians have passed through the most trying ordeal in the last 6 weeks of drouth and famine, and their behavior has differed but little from that of my Italians and hybrids. If they once get the taste of stolen sweets however, their energy is simply terrible.

G. W. Demaree.

Christiansburg, Ky., Aug. 27, 1881.

Explanation of Mailing Label.—My time is out at the end of September, but the label on the paper shows it out now; it ought to read Oct. 1, as I paid to that time. My 32 colonies have given 1000 lbs. comb in sections white, 500 lbs. extracted white, and 200 lbs. dark, and more coming now.

John L. Davis.

Holt, Mich., Sept. 5, 1881.

[The mark on the wrapper label is all right. Subscribers are entitled to the Bee Journal till the end of the months printed on the label.—Ed.]

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130 lbs. of Surplus Honey per Colony.—I enclose slip from the premium list of the Chickasaw Co. Fair. You will see they have offered the American Bee Journal as premiums, but they have made a mistate in giving it for a second instead of first premium, as I suggested. They have promised to change that another year:

Division I—Class No. 21.

Best sample box honey, quality and style of package considered, $2.00; 2d best do., American Bee Journal.

Best sample of extracted honey, $1.50; 2d best do., American Bee Journal.

Best display of honey by one exhibitor, $2.00; 2d best do., American Bee Journal.

The honey yield has not been as good since the 15th of July, as it was before that time, yet I shall have at least as large an average yield per colony, as I had last year, *viz*: 130 lbs. per colony. I am sure of at least 14,000 lbs. from my 108 colonies, and will have more if September should be as favorable for honey as it is sometimes.

O. O. Poppleton.

Williamstown, Iowa, Sept. 1, 1881.

Getting Rid of Fertile Workers.—I have had some experience with getting rid of fertile worker, and have concluded that the most profitable way is to let them work on what combs they can take care of until the close of the honey season, and then take away their combs and let them go. But if a person is anxious to increase his colonies I will say that, like introducing queens, you may succeed in all of the different ways, but none of them are always sure. They are like all rules in bee-keeping—have many exceptions. The way I have done this year is to take a strong colony that has plenty of brood, and after smoking both colonies thoroughly, mix all together and divide equally, putting eggs in each hive. This has not failed me this year, but may next every time; so with all rules in the business. Some of my tender-hearted bee friends may think it cruel to take away their honey, but they must remember that these bees, with the best nursing, will not live until November.

E. B. Southwick.

Mendon, Mich., Sept. 3, 1881.

Honey Season in Florida.—We commenced in the spring with 250 colonies. From about 50 of these no increase or surplus; 200 have given us 80 swarms, 836 gallons of extracted and 1,850 lbs. of comb honey, in 2 and 3 lb. sections. We expect 200 gallons more of extracted. It has not been a very favorable season with us, as the spring was backward. We will not mention our wax, as we intend working it up into foundation, on the Dunham machine, which we find upon trial is good enough for us. We find our Italians, which we bought from Dr. J. P. H. Brown, have given us about ⅓ more honey than the natives. We will Italianize all as soon as we can. We often get letters inquiring about our transportation and market. First we transport our honey 14 miles in row-boats down the Chippola river, to its junction with the Appalachicola, where we reship on steamboats. The nearest market is at Eufala, Ala., 300 miles distant, where a fine quality of extracted honey brings $1 a gallon, and 10@15c. per lb. for comb; Columbus, Ga., 600 miles, same price; Macon, Ga., freights are higher, as it leaves the river, and a fine quality is worth $1.10@1.20; Atlanta, Ga., is about the same. We have packed this crop in ½ gallon, and 1, 2 and 5 gallon cans. Our returns so far have netted from 87½ to $1.05 per gallon for extracted, and about 12c. per lb. for comb. We have a disease among our bees similar to that described by Quinby as foul brood. Success to the good old American Bee Journal.

Alderman & Roberts.

Wewahitchka, Fla., Aug. 26, 1881.

Melilot and Spider Plant.—I inclose two specimens, the seed of one of which was purchased for spider plant. It has been in full bloom for one month, and the terrible drouth has no effect on it, but I have the first bee to see on it yet. I think it may be there is some mistake about the seed. The other I bought for melilot, and I have never seen a bee on it. Are they the genuine plants?

R. W. Keene, M. D.

Versailles, Ky., Sept. 3, 1881.

[The specimens sent are true to name. We do not know how to account for the bees not working on them, unless it be that there is very little of it in bloom, and bees are not yet attracted to it. We had a few cleome plants in bloom last summer, and again this season, and have never seen a bee on them, although the melilot in close proximity was alive with bees all the season, yet we know the cleome is a good honey plant, and a favorite with the bees where it grows in large quantities.—Ed.]

Poor Honey Season.—About all the bees in this county died last winter, and what few are left are doing poorly. Last spring I had 8 left out of 23 good colonies. I have increased to 18 now, and they are storing buckwheat honey very rapidly now. I have no extractor, and some of them are crowding the queens out of all but 1 comb. I have to take the full combs out and replace with foundation. I use a hive 13½x14 with a super cap that covers all; the frames are 12x12 inches, and the section boxes are 6x6 inches. Bees done better in these hives last winter than any other. I have known of but 4 natural swarms out of about 60 colonies in this county. It has been very dry until this week, we have had 2 good rains. I have had 5 years' study and 3 years' experience with bees, and am 20 years of age. I found one colony in the timber late in the fall of 1878; this I Italianized in 1879, and have obtained a new queen every season for cross breeding. The Bee Journal cannot be beat.

Thos. Chantry.

Casey, Iowa, Aug. 30, 1881.

Size for Nucleus Hives.—In the Bee Journal for Aug 3, I notice a question is asked by Mr. S. Coulthard, of Preston, Ohio, who wishes to know the best size for nuclei holding Langstroth frames. I make all my nucleus hives to hold 4 Langstroth frames, and think that they are the handiest, especially where we want to rear bees to sell by the pound. I observe many are giving their report for the season. My bees have earned me an average of $17.29 for each colony I had last spring, and each colony has increased to four. How is that for Indiana? We had the heaviest yield of linden honey I have ever seen. I am looking for a good fall crop. I like the Bee Journal best in its weekly form; success to it.

Geo. W. Baker.

Lewisville, Ind., Sept. 3, 1881.

About Winter Temperature.—Wishing to increase the heat in my cellar at times, as in extreme cold weather the frost sometimes makes its appearance, can I do so by means of a kerosene oil stove, or not, for reason of the odor? 2. How best can I ventilate where no flue is at hand? 3. I notice the best temperature given is 42° to 50°; suppose frost is seen by condensation overhead, or a slight frost on the bottom of the cellar, does it materially affect the bees? 4. Are bees disturbed unless hives are touched, or are they sensitive upon the approach of a person, while in their winter quarters? 5. How small a nucleus will do well in the cellar with sufficient stores?

Wm. Wakefield.

St. Paul, Minn., Sept. 5, 1881.

[1. We do not think the oil stove would be advisable, because of the odor.

2. By putting in a tube running to the outside.

3. No; if but slight.

4. No; unless jarred.

5. Two frames well supplied with bees, and with sufficient honey.—Ed.]

Fair Increase, but Little Surplus.—I bought 3 colonies in the spring of 1880, which gave me two swarms and 125 lbs. of surplus honey. Being sick, I lost all but two colonies in the winter and spring for want of proper attention. I bought 10 more colonies, giving me 12 to commence this season with. I concluded to let them swarm naturally, as I wanted increase more than honey. I now have 30 colonies, all but 2 in good condition, which I shall unite. Surplus crop will be light, on account of dry weather. One swarm that came off June 17th, which filled a 30 pound crate in 4 to 5 days after filling their hive, and last week I took off the same hive 18 sections 5x6, weighing about 35 lbs., and they will work some yet. I have not taken all my surplus off yet, but think I will have some 400 lbs. I am now preparing a cellar to put them in this winter where they will be by themselves.

J. Dibble.

Breakabeen, N. Y., Aug. 30, 1881.

Seeds for Honey Plants.—Please inform us through the Bee Journal, who has melilot clover seed for sale, also seed for other honey plants, and young basswood trees, and oblige many subscribers.

J. Vandervort.

Laceyville, Pa., Sept. 5, 1881.

[See our advertising pages.—Ed.]

Rev. Mr. Langstroth's Promise.—On page 218 of current volume of the Bee Journal, Mr. Langstroth wrote in strong commendatory terms of Mr. Hill's plan of preparing his bees for passing the winter, with a promise to communicate it to the Bee Journal, in season for us to adopt, if we approved of it. Having great confidence in Mr. Langstroth's opinions in apiarian matters, I feel quite anxious to have it appear in the pages of the Bee Journal, so as to give ample time to make the necessary preparations, and not be hurried to do it when the time has arrived for its use, as most things done hurriedly are apt to be slighted. The flattering prospects in June, and the forepart of July in this vicinity for a good yield of honey, was cut short by the hot and dry weather. Two weeks ago, we anticipated that a few filled boxes of honey we had received would constitute the crop for the season, but, in spite of the dry weather, when the heartease came into bloom the bees began to wake up and stir themselves, and for the past week have been storing in the boxes again, and as we have had a light shower of rain recently to revive vegetation, we may yet, perhaps, secure ⅓ of an average yield, if frost does not interfere with it.

L. James.

Atlanta, Ill., Sept. 7, 1881.

Special Notices.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

◆

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆

☞ Articles for publication must be written on a separate piece of paper from items of business.

◆

Photographs of prominent Apiarists —Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

◆

☞ When changing a postoffice address, mention the *old* as well as the new address.

◆

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

Faded or Gray Hair gradually recovers its youthful color and lustre by the use of Parker's Hair Balsam, an elegant dressing, admired for its purity and rich perfume. 36w4t

◆

There is More Strength restoring power in a 50 cent bottle of Parker's Ginger Tonic than in a bushel of malt or a gallon of milk. As an appetizer, blood purifier and kidney corrector, there is nothing like it, and invalids find it a wonderful invigorant for mind and body. See other column. 36w4t

◆

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

◆

Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. It will pay to devote a few hours to the BEE JOURNAL.

◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

◆

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL,
Saturday, 4 p. m., Sept. 10, 1881.

The following are the latest quotations for Honey and Beeswax received up to this hour:

CHICAGO.

HONEY—New honey is coming in freely and the demand is good.

We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 7@9c.

BEESWAX—Prime quality, 18@21c.

AL. H. NEWMAN, 972 W. Madison St.

NEW YORK.

HONEY—There is no settled market price yet for honey, as there is none selling.

We quote as follows: White comb, in small boxes, 15@18c; dark, in small boxes, 12@15c. Extracted, white, 10@12c.; dark, 7@9c.

BEESWAX.—Prime quality, 22@24c.

THORN & Co., 11 and 13 Devoe avenue.

CINCINNATI.

HONEY.—Last week I paid King Cramer 17c. per lb. for a lot of about 2,000 lbs. It was in the Muth sections, 5¼x6, without separators. Every comb is perfect, which speaks well for the producer. If Mr. Cramer did not succeed, this season, in establishing rules for queen fertilization, he succeeded admirably in getting one of the finest lots of comb honey in the country. Extracted honey is just commencing to be in good demand.

I quote: Good comb honey, in sections, is worth 14@16c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

BOSTON.

HONEY—The prices of honey are not regularly quoted in our papers here. We quote: Honey in 1 pound sections retails at 25c.; in 2 pound sections, 20c.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

CLEVELAND.

HONEY—Comb honey continues in good demand at 20c. for 1 lb. white and 19c. for 2 lb. sections. Extracted honey, 10@12c.

BEESWAX—18@20c.

A. C. KENDEL, 115 Ontario Street.

BALTIMORE.

HONEY.—Both the supply and demand are too meager to report.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 22c.; grease wax, 12@13c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

SAN FRANCISCO.

HONEY.—Sales of choice comb, to arrive, have been effected at 20c. for small lots. It is doubtful if an order for a large lot of choice comb could be filled in this market. Choice extracted, in barrels, is quotable at 9@8½c.

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 9@10½c.; dark and candied, 8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.

ST. LOUIS.

HONEY.—Demand improving slightly; prices firmer.

We quote: New extracted, 7@9c.; comb, 14@16c. Round lots sold—extracted in cans at 7½@8½c., and choice comb in fancy pkgs. at 17c.

BEESWAX—Prime yellow sells at 20@21c.

R. C. GREER & Co., 117 N. Main Street.

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX—Best light 23@25c.—*Philadelphia Merchants' Guide.*

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept. 13-15—Ontario Bee-Keepers, Toronto, Ont.
27—Eastern N. Y. Union, Knowersville, N. Y.
N. D. West, Sec. Middleburg, N. Y.
29—Southwestern Iowa, near Corning, Iowa.
W. J. Oliver, Sec.
Oct. 4—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
5—Southeastern Mich., at Ann Arbor, Mich.
5-7—National, at Lexington, Ky.
Dr. E. Parmly, Sec., New York City.
12—Kentucky State, at Louisville, Ky.
11, 12—Northern Michigan, at Maple Rapids.
O. R. Goodno, Sec., Carson City, Mich.
11, 12—Northeastern Wis., at Pewaukee, Wis.
Frances Dunham, Sec., DePere, Wis.
12—Central Ky., in Exp. B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
18—Rock River Valley, at Monroe Center, Ill.
D. A. Cipperly, Sec., Monroe, Ill.
20—Union Kentucky, at Shelbyville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
25, 26—Northwestern District, at Chicago, Ill.
C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.
1882.
Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

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Pint, "	1¼	" "	.75....	4.00

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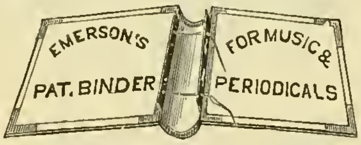

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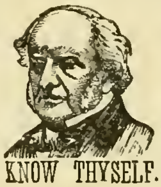

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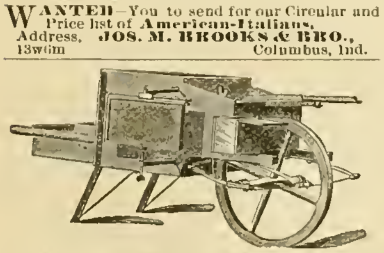

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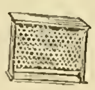

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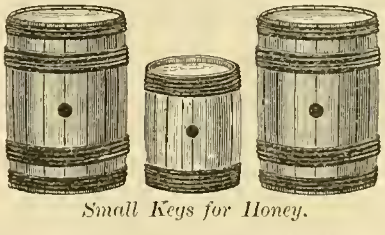

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OLDEST BEE PAPER IN AMERICA
THE AMERICAN
BEE JOURNAL
ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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The National Convention.

It is now quite time for all who can possibly attend the meeting of the National Society at Lexington, on Oct. 5–7, to make their arrangements to do so. As previously announced, the editor of the BEE JOURNAL has an engagement for that time elsewhere, and it seems to be almost impossible to break that engagement, so as to be able to attend the meeting at Lexington. By the urgent solicitation of many of our friends we have endeavored to make arrangements by which we may be able to attend this important national meeting on the second and third days of its session—October 6th and 7th.

If it is *possible* to so arrange matters we shall be there, for our heart and soul are engaged in the work of furthering the interests of American apiculture, and to miss this Convention would be quite a sore disappointment to us.

Mrs. L. Harrison, in the *Prairie Farmer*, very aptly remarks: "It will pay bee keepers to attend this swarming of their fellows—pay in pleasure and in profit. May the 'swarming fever,' which is so hard to control, be contagious all over the country, until the largest swarm is there congregated which was ever known. And when the discussions are over, we will hold an impromptu meeting in the annex Mammoth Cave."

More Good Words for Sweet Clover.

The *Indiana Farmer*, which early came to our support in advocating the practicability of planting for honey, and recognized the superiority of melilot or sweet clover, has the following in reference to this season's experience with it:

From Mr. Wm. Schofield, an old veteran bee-keeper residing a few miles northeast of the city, we have the following satisfactory report in reference to our favorite honey plant, melilot. Uncle Billy, as he is familiarly known, has about two acres sown to melilot. He says it made a prodigious growth early in the season, but on account of the excessively dry weather matured its seed very early. It had almost quit blooming, when he turned the cattle on it. They soon had all the tops eaten off, and much of it was cut almost to the ground. Soon after the cattle were removed, when the melilot seemed to take a second growth, throwing out new shoots, and blooming as profusely as early in the season. As an experiment, he tried cutting back a part of it, and reports the result very favorable, as, after being cut, the plants throw out many more branches, besides growing tall and compact. He thinks if he had had a few more acres it would have paid better than anything else on the farm.

Now is the proper time to make preparations for planting melilot. Procure your seed at once from some reliable dealer, so as to feel assured of their freshness; then select the waste places that are now obnoxious to the sight because of weeds, or some portion of the farm where nothing else will grow to advantage. If no waste places exist, then set apart good soil for it, as it will much more than repay ground-rent. Prepare your ground as for clover, and lightly harrow in the seed this fall. Fall planting is much the best, as it insures a more uniform germination. If desirable, sow wheat with it; or, if bloom is wanted next season, sow cleome with it, or in the spring harrow in with it mammoth mignonette.

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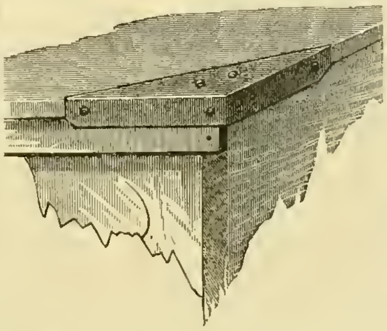
☞ At the Chicago Fair, held Sept. 13–17, Mr. R. A. Burnett, Commission Merchant of 165 South Water Street, had a very creditable display of both comb and extracted honey. He deserves credit at the hands of bee-keepers for his efforts in popularizing pure honey in our market. We are sorry to be obliged to say that owing to poor management, the exhibition of bees and apiarian implements was not what it might and should have been, had bee-keepers been given ample time and notice to prepare for it. We hope another season the apicultural department will be one of the most attractive features connected with the Chicago Fair.

Metal Corners for Crate Covers.

From Mr. W. H. Fletcher, of Sauk Rapids, Minn., we have received a very simple little contrivance for attaching to the corners of crate covers. These can be made of tin, require no especial ingenuity to manufacture, are easily tacked on the corners of the covers, and will be found very convenient by the grocer or family to hold the cover exactly in place, thereby effectually excluding flies and bees from the honey. The above cut illustrates a section of the cover with the tin corner attached.



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Arkansas State Fair.—We have received from Dr. W. W. Hippolite, of Devall's Bluff, Ark., the premium list of the Arkansas State Fair, to be held at Little Rock, Oct. 17-22, 1881. In the honey department, we find the following list of premiums, entrance free:

Best package comb honey, in the best marketable shape, 5 lbs. or more, $5.00

Best package of extracted honey, in the most marketable shape, 5 lbs. or more, $5.00

Best crate of honey in the comb, in the most marketable shape, 25 lbs. or more, $10.00

Best colony of bees in movable comb hives, including their public manipulation, $10.00

Best 5 lbs. beeswax, $2 00

Best machine for extracting honey, $2.00

Best display of bee-keepers' supplies, Diploma.

◆

☞ An inventive genius in Kentucky says he is perfecting machinery to make rolls for foundation machines. If he succeeds, it will greatly lessen the labor of making, and therefore make the price much less for first class comb foundation mills. He promises to have one on exhibition at the National Convention at Lexington.

Cook's Manual of the Apiary.

The sixth edition (eighth thousand) of this popular bee-keepers' handbook is now ready. As the lengthened evenings of winter approach, every reading, thinking agriculturist makes out his schedule of text-books to be purchased for pleasurable and profitable study, with which to educate himself and family; and whether it be the intention to keep a few colonies only for recreation and family use, or a larger number for profit, this book will be found invaluable. In fact, no scientific or rural library is complete without it, and no education is finished until it has been carefully and thoughtfully perused. In order to extend its circulation, and as an inducement to bee-keepers to assist in doing so, the price will be reduced to $10.00 per dozen, bound in cloth, by express to one address. This is a liberal reduction on the retail price ($1.25), making a saving of nearly 50 per cent. The last edition has been carefully revised, and contains the results of Professor Cook's latest scientific investigations and discoveries.

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☞ We are always glad to have articles copied from the BEE JOURNAL into other publications, but we must insist that the only honorable way is to give the BEE JOURNAL due credit for them. Several such are going the rounds that were stolen from our columns by some enterprising (?) paper, which are now credited to the thieving concern, and they look incomprehensible to some, as they refer to other articles in the BEE JOURNAL or its apiary, etc. The "New England Bee Journal" gives an article as original that was written by Mr. Chas. Dadant, and may be found on page 81 of the BEE JOURNAL for March 16, 1881. The original manuscript is now on file in this office. We know, of course, the failure to give us credit for the article was an oversight, but such omissions look badly during the first month of that paper's existence.

◆

Honey in the Eastern Markets.—It will be observed, by reference to our market reports, that Messrs. Crocker & Blake, of Boston, report that honey sells quite freely in one-comb boxes, and add: "A large quantity could be sold in our market at from 20 to 22c., according to quality." Every day furnishes fresh evidence that honey is a favorite with the public, and meets with a ready sale at good prices.

St. Joseph, Mo., Bee and Honey Show.

Many of our readers are aware that the aim of the Bee Journal has been to make honey a staple product. To this end we have endeavored to popularize the consumption of honey by the masses, as well as to raise the standard of production, by applying correct principles and progressive art to the management of the apiary. We have labored earnestly for this end, and now we begin to realize the results.

Bees and honey are already the great attraction at such fairs as have given prominence to this industry—and this will become more apparent each successive year. We were impressed with this idea at the St. Joseph Exposition. The officers of that association informed us that they were surprised at the result of their *experiment* in encouraging the apiarian department this year, and intended next year to give it far more prominence ; they had realized the fact that it formed the greatest attraction presented by the Exposition. To the Superintendent of the Apiarian Department, R. S. Musser, Esq., an energetic and prominent lawyer of St. Joseph, and his faithful ally, Mr. D. G. Parker, as well as the Judges, Messrs. John Bays, J. A. Matney and S. P. Hyde, may be attributed the grand success of the Bee and Honey Show.

By particular request of the managers we gave a lecture on Bees and Honey at the Court House, on Thursday evening. The managing editor of the *Gazette*, a morning paper of that city, was present, as well as its reporter. The editor of the *Gazette* gave his views of the subject in the following article :

> Few things last week, which brought us so many pleasant and profitable things, combined pleasure and profit to such an extent as the display of honey made at the fair and the lecture of Mr. Newman, of Chicago, on "Bees and Honey." The culture of bees is in its very infancy in this region. Until this year, there has been no noticeable display of honey at our fairs. The attention that was given to the subject this year marks a new era. The display attracted very great attention. Through the energy of the management of the apiary department, good prizes were offered and awarded. The bee-keepers of the region were encouraged and a more general interest was aroused in the subject. In fact, from this time the culture of the bee in Northwest Missouri seems likely to go steadily forward.
>
> It is a great industry. How great, only the few that are interested in it have any idea. It has never been extensively enough attended to in this immediate region to have brought any great profit. But there is money in it. And, besides the profit, there is a vast deal of pleasure. The management and manipulation of bees is such delicate work that many ladies have become distinguished apiarists. In fact, the business is capable of such extension and yields so much profit and pleasure that it may open a new field for ladies' employment. The accomplishments of Mrs. R. S. Musser of this city in this direction should stimulate many other ladies to engage in it. Such delicious food, in fact, should properly be brought to our tables by our ladies' care; it is altogether fitting.
>
> Those who had the pleasure of hearing Mr. Newman's lecture on "Bees and Honey," cannot fail to have new enthusiasm. To the unlearned, it was a revelation of the secrets of a great and mysterious industry. Improvement has followed improvement at such a rate in the structure of hives and in the instruments used in the manipulation of bees and in gathering the honey, that the apiary is as complete as a factory wherein man's ingenuity does the work. The secrets of the hive have been laid bare and the little workers are made subject to the apiarist's absolute management.
>
> So profitable can the business be made that it is profitable to plant bloom for the little honey-workers. To grow honey is as profitable as to grow butter or lard. But the time when we in this region will find it necessary to plant for our bees is yet distant. There is honey-bearing bloom enough that grows by our streams and in our fields to supply every table in Missouri.
>
> It was a gratifying thing to hear so good authority as Mr. Newman declare that, whatever else may be adulterated, the bees cannot be fooled with glucose. If honey be in reach, they will never store any thing else in their mystic cells.
>
> Let us all catch the enthusiasm. A few colonies of bees are cheap. They yield a delicious income. We trust that our local society of bee-keepers will keep up the enthusiasm ; and, in a few years, we may count honey among our great products. We have as good a chance as any people in the world.

The synopsis of our lecture as given in the Daily *Herald* may be found on page 301. The reporter of the *Gazette* remarks as follows :

> "An appreciative audience of several hundred bee-keepers, ladies and gentlemen, assembled in the court house last evening to hear Mr. T. G. Newman, of Chicago, the editor of the American Bee Journal, deliver a lecture on "Bees and Honey." The meeting was called to order, and Mayor Piner, as chairman, who introduced Mr. Newman. The lecturer has made both a scientific and a practical study of the apiary, and has earned a well-deserved reputation on both continents. It was a peculiar pleasure and a great privilege for the bee-keepers of this community to hear him. He is a pleasant gentleman, easy in his address and has an interesting manner in speaking. He was enthusiastically received; and all that had the pleasure of hearing him will not soon forget the occasion. He briefly stated the rise and progress of bee-culture and exhibited the most important inventions that have been made for the bee-keepers' assistance. The lecture was very practical and contained many hints that are invaluable. But practical as it was, the pleasure of the apiary as well as the profit was told ; for Mr. Newman is an enthusiast, 'as,' to use his own words, 'all bee-keepers are.' His visit to St. Joseph is highly appreciated and will long be remembered. The vast benefit and endless pleasure that will ultimately be derived from the study of this subject and the profit of the industry by our people. will always most pleasantly recall Mr. Newman's services in adding to their enthusiasm in telling of improved management of bees, etc."

☞ We have received a queen from Mr. D. A. Jones for trial and comparison in the Bee Journal apiary, but the season is so far advanced it will be impossible to express any opinion this fall, except upon the appearance of the bees, when she has ample time to rear them. The queen is smaller than the average Italian, but was very lively, and cheerfully received in the nucleus to which we introduced her.

Badges.—Bee-keepers going to fairs should wear a badge with a gold bee on it. It will serve to introduce him to other bee men. We will send them for 10 cents, post paid.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Ligurian Honey Bees.—In the *Rural New Yorker* Mr. G. M. Doolittle says :

> In the *Rural*, we read, under the above heading, that "a year or two since many of our apiarians were quite enthusiastic in regard to the merits of Ligurian honey bees, as it was claimed that they were more industrious than either the common bee or the Italians," etc. This, I believe, was taken from the New York *Sun*. As it conveys a wrong impression I wish to say that Liguria is simply a province in Italy, and therefore Ligurian bees and Italians are one and the same thing. The correspondent of the *Sun* farther states, giving Mr. Taylor's book as his authority, that these bees gather more honey by robbing the hives of common bees. This is contrary to the testimony of all practical apiarists (not apiarians as the correspondent of the New York *Sun* would have it). Practical experience in the apiary shows that the Italians are not as likely to rob as the blacks or hybrids, while they will defend their stores as long as there is a handful of them left. That they will gather more honey is a fact, and their chief value is their perseverance, in a poor honey season, in toiling on day after day for the little honey they can obtain, while the common bees seem to think *that little* is not worthy of notice. To illustrate :—In 1872, at the close of the season for basswood blossoms, from which our main honey crop is obtained, we did not have a single box of honey finished. At this time we had both Italian and common, or black bees. Soon the seed crop of red clover commenced to bloom, on which the Italians went to work at once, but not a black bee was to be seen. As a consequence we took from some of our Italian colonies 60 pounds of box honey, while the black bees had eaten up half their stores from the basswood and had to be fed for winter. After this we were not slow in introducing Italian queens to all our stock.

Effects of Adulterations.—The *Farmers' Review*, speaking of oleomargarine, says :

> Oleomargarine has a new load to bear. Last week a whole family were poisoned by its use, though not fatally, and 4 laboring men suffered from the same cause. The malady takes a similar form to the lard-butter cholera, prevalent in Chicago last winter.

Bee Forage and Bee-Keeping.—The *Farm and Garden*, a new and sprightly monthly, issued at Philadelphia, Pa., is on our table, and is welcome as an exchange. In it Dr. J. P. H. Brown, Agusta, Ga,, thus answers the following questions :

> *Is bee-keeping profitable?* It is when properly attended to ; and pays a larger dividend upon the capital than almost any other of the rural industries. Even in those localities where there are poor markets for honey, it pays to keep bees in order to secure a supply for family use. Honey can be profitably used in place of manufactured syrups which are now largely adulterated with glucose.
>
> *What are the requisites for success?* A thorough knowledge of the natural history of the honey-bee and of its proper mode of management together with a full acquaintance with the method of using improved apiarian implements. Such information can be obtained by reading and studying bee books and periodicals, in connection with practical experience in managing the hive. There is still another prime factor requisite for success. It is an abundance of honey producing plants. It is not true that the "busy bee" gathers honey from "every opening flower." Some flowers secrete sweet nectar abundantly. while other's bloom gives forth scarcely any. The apiary should be located where there is plenty of bee-forage. There are other conditions such as the kind of season, state of the atmosphere, &c., &c., that must never be lost sight of in successful bee-keeping.
>
> *Who shall keep bees?* Those only who have a taste for the business, and sufficient industry and energy to make an application of the requisite knowledge just at the right time.

Bees and Honey at Nebraska Fair.—Mr. G. M. Hawley gives the following notice in the *Nebraska Farmer:*

> The State Board of Agriculture has given us very liberal premiums on bees and honey, in fact they gave us all we asked for. Now it should be the duty of every bee-keeper to assist in making a display that shall be a credit to the State, and also to show the State Board that their liberty is appreciated. Bee-keeping is a new industry in this State and one that is designed in a short time to play an important part in its rural economy, and behooves us now to see to it that it is properly represented. Wherever bees have been tried they have been so successful as to create a demand in that locality for them.
>
> Let each read the premiums offered and then strive to make a display. In the premium list, where it reads "10 weeks," it should read "2 weeks." Also "comb foundation, partly grown." should read "partly drawn.

English Law Regarding Bees.—The law with regard to bees is rather peculiar, says the London *Law Times:*

> A dispute as to the ownership of a swarm came recently before Mr. W. F. Woodthorpe, the judge of the Belper County Court, and it was contended that being *feræ naturæ*, there could be no property in them, and that, therefore, the plaintiff, from whose land they had strayed to that of the defendant, could not demand their return or damages for their loss. It was proved, however, that the plaintiff had followed the swarm on their departure from his own land, and had not lost sight of them until he saw them alight in the defendant's garden. On the strength of the following passage from Blackstone (vol. II., p. 392)—"Bees are *feræ naturæ* ; but when hived and reclaimed, a man may have a qualified property in them by the law of nature as well as by the civil law. Occupation—that is, hiving or including them—gives the property in bees, for, though a swarm lights upon my tree, I have no more property in them, till I have hived them, than I have in birds which make their nest thereon ; and, therefore, if another hives them, he shall be their proprietor ; but a swarm which flies from and out of my hive are mine as long as I can keep them in sight, and have power to pursue them, and in these circumstances no one is entitled to take them"—judgment was entered in favor of the plaintiff for the amount claimed as the value of his truant bees.

☞ *The Rural Canadian* is the name of a new monthly farm paper, published at Toronto, Ont. The first number is on our desk, and presents a neat appearance. The great variety of useful and practical articles presented in the initial number bespeak for it a large subscription list. It is edited by the Rev. W. F. Clarke, whom our readers are well aware is a terse and vigorous writer. It contains 16 pages of the size of the Bee Journal, and is published at $1.00 a year. We wish the *Rural Canadian* much success.

CORRESPONDENCE

For the American Bee Journal.

Reproduction in the Honey Bee.

G. L. TINKER, M. D.

After so many eminent investigators have stated that the drone progeny of a queen mating with a drone of another race, is not affected by the cross, it would not seem to be of much use for any one to dissent from their views. Yet it is manifest that they have overlooked some very important facts, which, if they were known, would necessitate a revision of the Dzierzon theory. I say manifest, since the theory does not hold true in practice, without which, its correctness can only be assumed.

To be true, the drone progeny of sister queens, bred from a pure blooded mother, should show some degree of similarity in their marking, though one of them should have mated with a drone of another race, and produce hybrid workers. But we do not find it. In the one case the drones are imperfectly colored and inferior in many respects. In the other, there will be found great uniformity with the drone progeny of other sister queens that have purely mated.

The above facts have been observed many times, and always with like result. An Italian queen mating with a black drone, invariably begets a mixed drone progeny, many being well marked blacks, others being illy colored, with none so finely marked as those begotten of sister queens purely mated.

Further differences may be noted in the growth of the hairs at the extremity, and beneath the abdomen. On the pure Italian drone these hairs are short and thinly set upon these parts. In the pure black drone they are comparatively longer, straight, and thickly set, so as to be readily noticeable. In the drone offspring of Italian queens crossed with black drones, these markings resemble those of the purely black drone very much. So much so, indeed, that I have a settled conviction that there is black blood in such drones, notwithstanding the Dzierzon theory to the contrary.

It is my opinion, therefore, that every egg deposited by a fertilized queen is impregnated in some way by the spermatozoa of the drone with which she mated; and if it chance to be a drone of another race, the entire progeny will be hybrid.

The principle of generation by which male and female elements are formed in the animal creation, has never been explained or understood. Like the principle of life, it appears to involve problems that are no nearer a solution to-day than they were ages ago. And until some of these principles are solved, we shall not be able to explain the modus operandi of reproduction in the honey bee.

Meantime, if any theory be advanced that does not comport with well known facts, it may as well be abandoned.

The Dzierzon theory contemplates that the drones begotten of queens impurely mated are unaffected by such cross; but the standard for comparison must be the drones of pure queens of the same race. If the drones of impurely mated queens do not come up uniformly to this standard, it is plain that there is something wrong with the theory, that no amount of philosophizing can ever establish.

So too with the theory that queens are impregnated with royal jelly (drone's semen), while in the larval state, enabling them to deposit eggs that will produce variable drones.

Many examinations have been made, but no drone's semen or spermatozoa have ever been found in royal jelly, and without this can be done by a competent microscopist, the theory must be held not only untenable, but highly improbable; for semen without the sign of a single spermzoon, would be about as worthless as the irrepressible theorist without brains.

A very probable theory of the union of sexual elements is, that immediately after fertilization, the ovaries of the queen are not only influenced and begin to develop eggs rapidly, but that there is also a primary fertilization, that affects in a general way, every embryo egg in the ovaries; and a secondary fertilization of the eggs in passing by the spermatheca by voluntary act of the queen when it is desired to deposit eggs in worker cells, and permitting the eggs to be deposited in drone cells, to pass by unaffected.

It is certain, at all events, that a general fertilization of the ovaries is not less possible in the fully developed queen than in the larval state. It has not yet been shown that the drones of virgin queens possess full virile powers. Many have endeavored to get queens fertilized early in the spring by such drones, but have failed. In an experiment of this kind 2 years since, I wintered a virgin queen, and had a fine lot of early drones. The one queen reared to supersede her flew out many times every clear day for 10 days without success, until some drones appeared from another hive, when she became fertilized at once. Hence, it is pretty certain that the Dzierzon theory is wanting on this point also, viz: that the drones of virgin queens are not possessed of virility.

As to the transmission of certain qualities of the queen and drones, I think that the rules applicable to the animal creation generally will hold good in the honey bee.

1. The female transmitts the degree of fecundity, and determines the size and the form of the female offspring.

2. The male transmits the disposition and the energy to the female, and determines the size and the form of the male offspring.

It happens, however, from causes not yet understood, that some marked exceptions to these rules occur, yet the rules may be depended upon in 4 cases out of 5 applied generally.

It has been further observed that the drone influences the coloring of the worker offspring in a marked degree, and so far as I have been able to judge, that of the drone offspring also.

Thus it will be seen that I have given to the drone greater importance in the breeding of a superior race of bees, than has been generally acknowledged heretofore, and I feel certain that what I have seen, others have seen, and will be able to confirm what must be a very common observation.

New Philadelphia, O.

For the American Bee Journal.

Wintering Bees in Texas.

WM. R. HOWARD.

At the close of the honey season we should examine our bees, and put them in condition for winter. To do this, we must first understand what are the requisites, and secondly, how to secure conditions to fulfill these requirements.

Plenty of pure honey, the natural food, pure air, the natural element, and a full colony in a normal condition, with a prolific queen, are the principal elements of successful wintering bees.

Every full colony should have 25 or 30 lbs. of good honey to go through the winter safely, and should be given just what room they will occupy and no more. If they do not fill the hive, a division board should be used to contract the hive to the proper size, to accommodate our wants. Our honey season generally closes with the advent of the first "norther," as they are popularly called, but we often have many warm days after this, when bees can fly. If our bees have not honey enough to winter on in the hive at this time, and we have no sealed honey in frames in the store-room, we must resort to feeding; this we do inside of the hive on top of the frames with pure extracted honey. We have tried a syrup made from coffee A sugar, but not sufficiently to justify us in coming to a correct conclusion. Perhaps it might do, but we cannot recommend it. If pure honey is to be fed, they should be fed all they need to carry them through the winter safely, as fast as they can store it away in the combs. Our hives should be protected if possible from the severe northwest winds; orchard trees, close fences, sheds, or boards laid against the hives, will answer the purpose of windbreaks.

Our hives should be water-proof entirely. Ventilation is unimportant—only the hive should be kept as dry inside as possible. Our temperature never runs low enough to make ice in the hive from the condensed moisture within the hive.

Our bees wintered last winter, some with the boxes, upper chamber, etc., on, and others were covered as "tight as a jug," using close top frames with morticed entrances to upper chamber; the bees glued the top bars together in one solid plank so to speak (we use thin wooden blocks to cover the morticed entrances, which the bees glued fast to the frame as soon as placed in the hive). We may see, by going among the old box-hive men, bees winter well in every sort of hive, some with the top only laid upon the box, and not nailed; others with a crack in the side from top to bottom an inch wide extending across the top, free to rain or snow or other imclemences; and others under some shed with the top entirely off, and perhaps a foot or more from the ground, both ends open; while others are out in some thicket or briar patch in some old box of about 4000 cubic inches, and so little attention has been given it, that the box is entirely rotten, only held together by the "cross sticks," and bees working out at every angle from it, "mother earth" having claimed 2 inches of the bottom of the gum, and yet these bees have occupied this position for 6 or 7 years without loss in wintering.

Bees are wintered in every conceivable condition in this climate, except without plenty of honey, proving beyond a doubt of the most skeptical, that ventilation in this climate, is unimportant to winter bees successfully.

If we have a few weak colonies when winter approaches, they should be united with other weak colonies, or, if we wish to preserve the queens, contract the hives to a suitable size, and, with plenty of honey, they will go through the winter safely.

It will be seen from the above and foregoing, that bees winter here almost without any attention, if they have plenty of pure honey; and right here we might add, that if our bees are put away with plenty of honey, and in comfortable hives, that all they need is a "severe letting alone" until the approach of the next honey season, unless we are satisfied that they are starving, when they should be fed pure honey on top of the frames with as little disturbance as possible.

Kingston, Texas.

For the American Bee Journal.

Spruce Honey Kegs.

JAMES HEDDON.

A majority of the years of my honey producing have been devoted to the production of extracted honey. I presume I have marketed more than 150.000 pounds. I have used dozens of different kinds and sizes of packages, from a 1 pound glass tumbler to a 1,000 pound cask. I have used mainly an oak 32 gallon barrel for selling in bulk, but that carries with it the same objection that larger boxes of comb honey do, viz.: Too large to suit many customers, or to carry safely and handle easily, and to pile up economically in our rooms.

The 50 and 100 pound cheap spruce kegs just satisfy a long-felt want. They need a slight soaking with clean water, then drive and tack the hoops, and they are as tight as a drum. I have always had the best success with wood hoops; they hold better than iron ones. These kegs are a blessed addition to our supply department, for which Mr. Alfred H. Newman is entitled to our thanks. With spruce kegs and spruce sections, do you not think we are becoming quite "spruce?"

Dowagiac, Mich., Sept. 15, 1881.

For the American Bee Journal.

The Arrival of the Prize Queens.

E. L. BRIGGS.

No one but a bee-man can understand the pleasing excitement of expecting, receiving, and disposing of a half dozen rival queens, as contestants for the highest honors, known to the royal sisterhood, of beauty, strength, gentleness of demeanor, and numerical increase and prosperity of subjects, over which she reigns a queen.

Shortly after my proposition went forth to the public, I received and accepted the following queen breeders as contestants for the $10.00 prize:

J. Osborn & Bros., of Le Claire, Iowa.
William Lossing, Hokah, Houston Co., Minn.
Charles H. Lake, 93 W. Pratt St., Baltimore, Md.
Dr. I. P. Wilson, Burlington, Iowa.
M. H. Snyder, of Elmwood, Ill.
Wm. P. Henderson, of Murfreesboro, Tenn.

As an alternate, I also accepted, J. M. C. Taylor, of Louistown, Md., in case any one of the others failed to arrive.

Of course it became my daily business to haunt the Post and Express offices, and no ten virgins ever looked for the coming of the bridegroom with more solicitude, than I looked for the coming of the queens, upon every train. After what seemed weeks of waiting, the express messenger put into my hands a 1-framed nucleus observing hive, from Dr. Wilson, of Burlington, Iowa, containing a full-sized Langstroth frame, with a queen, and her attendant escort of workers. I took her to the parlor table, and, in the presence of my wife and family, she was unveiled to our admiring gaze by lamp light. The next day the bees were set at liberty, and have been prosecuting their work with untiring zeal ever since. The queen herself was duly installed as the regal mistress of my colony No. 20, which has been filled with brood, now about ready to issue from their cells. A young queen, a complete duplicate of her mother, now reigns over the nucleus, which will tell the judges of the queen-breeding qualities of the mother.

Next came a small red-painted nucleus hive, containing 3 frames, and about a pint of bees as attendants of their queen mother, from Mr. Lossing, of Minnesota. She remains with her right-royal looking children, the nucleus having been enlarged from time to time, till it is now almost large enough to winter in. A royal princess has been reared from her brood also, that, in appearance, is fully up to the standard, and exactly like her mother.

Then came the queen of the south, from Mr. Wm. P. Henderson, of Tennessee, contained in a queen-cage with from 25 to 50 workers as attendants. I dare not, of course, speak of these queens in comparison with each other, until after the judges decide upon their relative merits; but, if all the daughters of Tennessee are as fair and gentle in appearance, and as regal in bearing as this beautiful queen, then the men of Tennessee are to be envied. This queen, after a day's probation, was installed as ruler of colony No. 16, where she still presides right royally.

On the 27th, a nucleus hive containing another trancendantally beautiful queen and her escort, arrived from R. J. Osborn & Bro., of Le Claire, Iowa. She was without any probation gladly welcomed, and installed over colony

No. 37, where a young unfertilized queen had been destroyed. When the attendant workers began to move on to the comb, the tenants of 37 met them with a buzz of gladness, and stretched out their bills to feed their approaching visitors. So the queen was permitted to move on in the procession too. She was fed and caressed from the start. She commenced depositing eggs at once, and her progeny will be on time for the coming exhibition.

On the 7th, a nucleus containing queen and bees on 3 frames, arrived from M. H. Snyder, of Elmwood, Ill. The accompanying bees are exceedingly large, and seem bent on making up for all lost time, by filling their nucleus with honey. They are a dark leather color. The brood of the queen is issuing quite rapidly, and of course will show her breeding qualities by the time the day arrives. The queen is very large, brightly colored and beautiful, and pays no attention on being handled, pursuing her business as though the comb remained in the hive.

Take it all in, they are as fine a collection of queens as I ever saw; one, of which is at least from an ⅛ to a ¼ larger than any yet having come under my observation. What her progeny may be, in this respect, time alone will determine.

From some reason or other, the one from Baltimore has not arrived yet, neither has the alternate from Mr. Taylor. Therefore, if any other queen-breeder wishes to compete for the prize, and will forward a nucleus hive at his own risk containing a queen, accompanied with a sufficient number of bees of her own progeny (and none others), I will put her in, provided the others do not arrive, and either pay for her, or return her in as good order as received, at the express office, provided the others do come. However, if no other comes, one of the five will be awarded the $10.00 prize, in addition to the sale price, and I shall be abundantly satisfied with the result of the enterprise.

Wilton Junction, Iowa.

For the American Bee Journal.

The Wintering of Bees.

E. ROOD.

Were I younger, I would try a very simple experiment in wintering, to wit: As soon as the first killing frost, I would extract all the honey, then select sufficient combs to contain syrup made of pure cane sugar and water (say 2 lbs. of sugar and 17 ounces of water), simmer them together for a few moments, skim, and feed 25 lbs. to each colony, by some of the variety of feeders, into combs having no pollen. This should surely be done in season for the bees to cap it over. Thus the experiment covers two points:

Bacteria (or poisoned honey in some other way), and the evil effects of pollen if any; rye meal may, and should be substituted for it in the spring. This done, all causes for dysentery seem to be guarded against, except one: Epizootic, or local atmospheric influence, like Asiatic cholera with the human race, or epizooty with horses.

By the above experiment, the three pounds of extracted honey will bring as much as the sugar will cost, and more.

I know of no one that has said that bees will winter on candy. Mr. Langstroth has not; but they will do well on it when they can fly often. I tried a good colony 2 years since, by placing only empty combs in the hive, on Nov. 1, and gave the bees pure cane sugar candy on the frames; the moisture from their breath softened it. While they could fly every day they did well, and they seemed to prefer the candy. But December was cold every day, and they all gorged themselves to death within 30 days.

Fifteen colonies that were short of honey, one spring, after removing them from the cellar, I fed for 1 month on candy; it carried them through nicely; they did not seem to attempt to store liquified candy at all.

One writer in the BEE JOURNAL, says his bees dwindled badly in the cellar in the spring, as I have not a particle of doubt all have if the cellar is warm. The living drag out the dead, tumble them to the floor together, and how does the living one find its way to her hive again? Mr. Kelley, of Wayne, Mich., devised a perfect remedy by tacking to the bottom board a small box, so smooth inside that a bee cannot carry her dead sister up; and they will tumble into the box; she will drag the dead one around, when it finds that it cannot succeed in carrying it up the side of the smooth box, it will abandon the attempt, and of course seek her home and find it.

Wayne, Mich.

For the American Bee Journal.

Parthenogenesis Again.

PROF. A. J. COOK.

I have been repeatedly asked, and even urged to reply to the article by Mr. C. J. Robinson, in AMERICAN BEE JOURNAL for Aug. 24th, on parthenogenesis. My time has been so occupied that I have not been able to get a moment for this purpose till now; and even now, I must be very brief, which I can the better afford to be, because of the able and excellent article from Wm. R. Howard, M. D., (AMERICAN BEE JOURNAL vol. 17, p. 290), just at hand.

First let me say, that in stating that all intelligent apiarists accepted parthenogenesis, I by no means meant to be discourteous, or harsh, truth is too glorious a thing to wrangle about; life is too short, too full of golden opportunity for good work, to admit of any time for harsh words or unkind allusions. The article which I wrote was prepared and read before the Entomological section of the American Association, for the advancement of science one year before it appeared in the AMERICAN BEE JOURNAL, therefore I did not then know of Mr. Robinson's views. Major Munn was in his dotage when parthenogenesis was first brought to the attention of scientists, and died some years ago, (I think now that without doubt, he is a believer in agamic reproduction). Yet even if a few do fail to accept the theory, these exceptions but prove the rule, and we might still say that parthenogenesis is accepted by all intelligent apiarists.

Mr. Robinson asks for proofs; I will give them:

1st. As well shown by Dr. Howard, this phenomenon is not confined to bees, or even to insects. If Mr. Robinson will isolate plant lice just as they come from the parent louse (they are brought forth alive, being ovo viviparous) or he may carefully dissect the parent and take out the young lice, he will find that each one will produce lice when full grown, though it has never seen another louse male or female, since its birth. Von Siebold has fully shown that many if not all, aculeate Hymenoptera, such as bees and wasps, males are the result of agamic reproduction. This then in case of bees is not exceptional, but an illustration of a law wide extended among the lower animals.

2d. Isolate a queen or prevent her from pairing by clipping her wing, and she will certainly lay none but drone eggs. Examine with the microscope and we find no sperm cells in her spermatheca or oviducts. In all drone-laying queens the spermatheca is likewise depleted. The same is true of fertile workers. This of itself is a demonstration of the truth that drones result from parthenogenesis.

3d. The eggs in queen and worker cells contain the spermatozoa or male elements, while none exist in the eggs which are to develope into drones. Von Siebold and our own Dr. Leidy demonstrated this years ago, while many other microscopists have verified it since. This too demonstrates the law.

Would such an expert scientist and able apiarist as the late Baron of Berlepsch, who at first stoutly resisted this view, in opposition to Dzierzon, have upon thorough research, such research too as the Germans make, keen, close, untiring, have accepted this law, only as the loved truth and found it here?

Mr. Robinson in his article in the BEE JOURNAL, vol. 17 page 89, carries the idea that some think that queens are the result of parthenogenesis. The queens can only come from eggs which have received the sperm cells, and after the eggs hatch the food must be richer (a fact of which I am persuaded), and more abundant. He says Dzierzon "jumped at his theory." I do not so understand the matter. Dzierzon pronounced this law not as an hypothesis, but as a truth demonstrated by practical observation, and sustained by two of the most able scientists of the world—Von Siebold and Leuckart.

The theory of Mr. Kirby, as given by Mr. Robinson, it seems to me is entirely untenable.

1st. It has no parallel, so far as I know. Elsewhere in the animal kingdom, sperm cells are always the product of male organs, and can only be effective when they come in contact, in a fresh state with fresh eggs.

2d. I have repeatedly examined royal jelly with a high-power microscope, and could not have failed to notice the sperm cells if they were there. There were none. That the semen could be deposited and used at pleasure by the workers is impossible. It is well known that sperm cells are only vital when comparatively fresh.

It occurs to me that Mr. Robinson can test this matter easily for himself. Early next spring let him take frames of empty comb one of which shall be placed in a hive with a queen—no drones of course—just long enough to secure some eggs; with these let him make a nucleus. He may feed sugar for food—the bees will gather pollen enough for the few larvæ, and I will warrant him a queen. Yet, on his theory, where are the sperm cells. I will tell him: They were incorporated in the egg as it passed the spermatheca of the queen.

In answer to Mr. Robinson's last question, I would say that had he reared as many insects as I have, and noted the wondrous effect on the imago of partial starvation of the larvæ, after a reduction in size of at least one-half, with parts illy developed, and then remember as Darwin has so graphically shown, that in all animals the reproductive organs are, of all the tissues, the most sensitive, we may easily believe that more or less food, of richer or less rich quality, might readily accelerate or retard the development of the ovaries of worker larvæ. I find that these rudimentary organs do vary in different workers.

I have shown that Syrian bees have afforded a proof of parthenogenesis. The points will be given in a paper to be read at the National Convention.

Lansing, Mich., Sept. 18, 1881.

For the American Bee Journal.

The Degeneration of Bees.

GREINER BROS.

In order that we may have the above subject a little more investigated, we wish to ask Mr. S. S. Butler his opinion on one or two questions.

From the related instance of the 8 weather-beaten pine boxes, Mr. B. draws the conclusion that that kind of bee-habitation, being let alone, is better adapted for successful bee-keeping than the movable frame hive with its various manipulations. He says, "I claim that his bees had not lost any of their natural vigor or toughness, had not degenerated by either rearing forced queens himself, or being near enough to one who has," etc.

We refer the gentleman to the statistical table on page 228 of the AMERICAN BEE JOURNAL, and ask the question: Why is it then, that the box hive has suffered a loss last winter of 89 per cent., whilst the Langstroth hive, which is used, perhaps, as much as any other hive for artificial swarming, and forced queen-rearing, has suffered the least, only 43 per cent.

For the last 6 years we have made bee-keeping our exclusive business, and within a radius of 15 or 20 miles, we are the only ones that have practiced artificial swarming and forced queen-rearing. Why is it now, that that our loss last winter was less than one-half of our bees, being 75, of 160 colonies, while our neighbors, as far as we could learn, have lost from 75 to 100 per cent., box hives not excepted.

There seems to be a little misunderstanding in the term, "forced queen rearing." We have no doubt that queen-rearing, if practiced as described by Mr. Butler, would result in degneration. He says, "The queenless part rears one from larva, from 1 to 3 days old, making a queen not up to the standard of one reared by natural swarming." This may be true, but the queenless part should be supplied with a laying queen when the division is made, or else the main object of artificial swarming is missed.

The queen should not be reared from a larva 3 days old, nor by a divided swarm, but should be reared from the egg of a selected mother, and by the best colony in the apiary. Queens reared in this way have answered our purpose first rate; some bee-keepers may prefer those reared by the swarming impulse, but when we compare our last winter's loss with the loss of apiaries where the latter plan has been practiced; when we observe that our best colony has given us the enormous yield of nearly 400 lbs. of comb honey in 2 lb. sections, and that the average yield of one of our branch apiaries is 135 lbs. per colony, we can well afford to rear our queens by the forced system, and recommend it as safe and harmless.

Naples, N. Y.

For the American Bee Journal.

Preparing Bees for Winter.

L. J. DIEHL.

Mr. H. Rickey, asks in reference to my article on page 268 of the BEE JOURNAL, of Aug. 24, "Does Mr. Diehl leave the hole near the entrance open all winter, or what is it for? Does he contract the entrance?"

In reply, I will say that I leave the auger hole open, and I have found that it answers two purposes: First, there is circulation of air enough to keep the hive pure and sweet, and yet not enough to cause a draft in the hive, and cause over consumption of honey.

I advised that all colonies should face the south; this is very essential safe wintering with my method. All combs should run from front to rear, then if the hive faces the south, and is not shaded too much, the morning sun in winter will strike the hive and the combs, and will conduct the heat to the bees. The hole in front will come opposite the cluster of bees, and they will take advantage of a few hours' sunshine to void the fœces when the lower entrance is frozen up, and otherwise closed.

I contract the entrance to about 1½x¼ of an inch, thus preventing a draft. The auger hole being 4½ inches from the top of the hive, there is no upward ventilation.

In this way I have wintered with success for the last 6 or 7 successive winters. In this county there was scarcely any bees that lived through the winter, with the exception of mine, and my loss was 6 out of 80 colonies. My bees have increased to 135, mostly by natural swarming, and they are in splendid condition for winter. I have taken 2,500 lbs. of honey, mostly in 2 lb. sections, and have reared 125 queens. This has been a good season for bees, but I have been so busy in the store that I could not give them the attention they should have.

Butler, Ind.

CONVENTION NOTES

Bees and Honey.

By particular request, the editor of the BEE JOURNAL gave a lecture at the Court House, in St. Joseph, Mo., under the auspices of the St Joseph Exposition, on the above subject, on Thursday, Sept. 8, 1881. The St. Joseph *Herald* gives the following report of the lecture:

Mr. Thos. G. Newman, editor of the AMERICAN BEE JOURNAL, of Chicago, delivered a very interesting lecture to an appreciative audience, last night, at the Court House. Mr. Newman is a very pleasing speaker, and when talking about bees, he is at his best. There was present at the lecture a number of prominent gentlemen of the city, Mayor Piner presiding over the meeting, and introducing the speaker. We give the following synopsis of Mr. Newman's lecture:

Mr. Newman said that the magnitude of the industry of "bees and honey" could be estimated by the fact that there were in North America 300.000 persons who keep bees, and if these apiaries average but 10 colonies each, the number of colonies reaches 3,000,000, and if these produce but the very small average of 25 pounds of honey per colony, then the product is 75,000,000 of pounds of honey, worth 10,000,000 of dollars; and if each colony of bees yields but 1 pound of beeswax yearly, then the wax product at 20 cts. per lb. is worth $600,000.

The lecturer then reviewed at length the rise and progress of apiculture from ancient Bible times to the present, showing the several "progressive steps" in the science, and illustrated his lecture by a full description of the most useful implements of modern bee-keeping, many of which he exhibited to the audience and explained their uses.

He detailed the efforts put forth to obtain superior races of bees, and was very emphatic in his assertions that the credit belonged to America for obtaining, by careful selection and improvements, the best strains of Italian bees in the world, saying that he had taken some of these superior bees from his apiary in Chicago to the most prominent European countries, including Italy (the home of the Italian bee), and that these bees were universally praised for their singular beauty, size, docility, etc., and that since he returned to America the Italian bee paper, *L'Apicoltore*, published at Milan, Italy, has thus said: "The American bred Italian bees exhibited to us by Signor T. G. Newman, editor of the AMERICAN BEE JOURNAL, on his recent visit to Italy, were the pretiest bees we ever saw."

He said that five points were essential to entitle bees to the admiration of bee-keepers, viz: They must be prolific, industrious, docile, hardy and beautiful in appearance. The queen must be able to keep the hive full of bees to gather the honey harvest when it comes (and it is quite often of short duration); the bees must be industrious, to let nothing escape their vigorous search while gathering the sweet nectar; they must be docile to allow the apiarist to manipulate them with ease and pleasure; they must be strong and hardy to withstand the rapid changes in climate; and they must be of singular beauty to attract the admiration of the fancier of fine stock. He said his ideal bee would be present at the very moment when the slumbering flower awoke to consciousness, and unfolded its buds to take in the first rays of the morning sun, and will dip into that tiny fountain which distils the honey drop by drop, and bear away its sweet nectar to its waxen cells of beautiful comb.

He said that while he did not know what may be the color, markings or all of the special features of "the coming bee," he was certain that it would gather the most honey, be the most docile, hardy and industrious, and that its name will be "Apis Americana."

From the fact that by the advance civilization, many of the honey-producing trees, plants and shrubs were disappearing; the lecturer argued at some length the necessity of planting for the honey bees just as much as for any farm stock—in order to secure a succession of bloom from spring to fall.

The speaker said that notwithstanding the many improvements that had been made in apiculture, it was but yet in its infancy—that the flora now going to waste in America could, if properly gathered by bees, produce a revenue of 200,000,000 of dollars annually.

The lecturer then entered into detail about the wonders of the bee hive and its industrious little insects. He described the development of the queen, drones and workers, and gave the audience an insight into the wonderful enonomy of the hive. He said he had seen the seven wonders of the world, but the wondrous little bee, with its architectural skill, governmental wisdom, untiring activity, and marvelous transformations, was really the Aaron's rod that ,swallowed up all the other wonders—many of which he detailed at considerable length.

Some were fearful of an over-production of honey, but the speaker said that there was already a demand far in excess of the supply. Just before leaving Chicago to come to St. Joseph to deliver this lecture, he had received a letter from England asking him to send 250 tons of comb honey, and the purchaser stood ready with cash in hand to take it at three times the price it would bring in America. The reason for this foreign demand was obvious. Europeans had neither the honey-producing flowers, favorable seasons, nor the improved appliances to gather the honey at home, and hence must depend on America to supply them.

Mr. Newman closed his lecture, which had been interrupted by frequent and prolonged applause, by saying that he had read with much pleasure the article in the St. Joseph *Herald* of last Sunday, entitled, "Bees and Honey," and was amused at the sagacity of the reporter as well as the philosophy of Mr. A. M. Saxton, one of the prominent citizens of St. Joseph, who had been interviewed. Mr. Saxton was right in saying that the inhabitants of St. Joseph and its vicinity should be benefited by the display of honey and bees at the Exposition, and the speaker said he was glad to see that Mr. Saxton had offered special premiums of $40 for honey exhibited by ladies. Many ladies were already engaged in the industry, and were among the most successful, nature having endowed them with finer feelings, and as close a scrutiny and activity as it had man. The speaker said that to the untiring energy of Mr. R. S. Musser, the credit was due for making the bee and honey show so much of a success. It had really been one of the chief attractions of the Exposition, many having come from 50 to 100 miles to see it alone. He most emphatically endorsed the following sentiment, quoted by Mr. Saxton:

> "Work for some good, be it ever so slowly,
> Cherish some flower, be it ever so lowly.
> Labor!—all labor is noble and holy.

Success in any industry depended upon information, study, activity, adaptation and skill, and anyone who possessed these essential qualities, and was willing to learn, could make a success of bee-keeping. Those who would not study and learn from the experience of others how to care for bees, should keep out of the business entirely.

In conclusion, the speaker detailed some of the principal qualities of honey, both as food and medicine, and and then took his seat amid much applause.

A vote of thanks was unanimously given to the Hon. T. G. Newman, of Chicago, for his lecture. Mr. Newman is not only the editor and publisher of the AMERICAN BEE JOURNAL (the first weekly bee paper in the world), but is the author and publisher of several works on the subject of scientific bee-keeping and honey production.

Bee and Honey Show at Manchester, England.—The London *Horticultural Journal* gives the following account of this show:

The Committee of Management arranged to have no competition in the bee tent, and requested Mr. Pettigrew, of Bowdon, to provide an attractive and interesting display of bees and honey from his own garden. He consented to do so, believing that an exhibition of this kind would go far to popularize bee-keeping. Mr. Pettigrew resolved to make this show a novel one, by introducing a new form of observatory hives, and to exhibit legends on black boards done in honey comb by bees, and sets of icicles of honeycomb under glass shades. The state of his health prevented him from doing all he intended and desired to do. The icicles were not done. However, the exhibition was evidently a great success. The honey tent was crowded with visitors every day, and no one could enter it without hearing expressions of wonder and gratification from all classes of visitors. The observatory hives, 4 in number, were of cheap and simple construction, with bees and glass on one side only of each super. The queen of each super had a white woolly cotton thread tied round her waist, which enabled the spectators to see her at a glance, and watch her movements as she wandered amongst the community. But the most conspicuous and novel exhibits of the bee tent were two black boards 6 feet 4 inches long, and 2 feet broad, with two legends on them done in honeycomb—viz: "God Save the Queen," and "Industrial Exhibition." The letters being 5 inches long or thereabouts were easily read, and seemed to delight all classes of visitors. Both boards were labelled "Our First Efforts in A B C." Honey of different kinds and of the highest quality in glass dishes were on the tables, beside bone spoons, for visitors to taste; and honey in glass bottles—4 lbs in each—was there for sale. The demand for run honey was extraordinary, and all was speedily sold at 1s. 4*d*. per lb. (about 30 cts). Three bottles of crude honey were on the tables for the purpose of showing, in the exhibitor's opinion, that honey proper and fit for use on the breakfast table is not found in field or forest, but is made by bees at home from the crude materials found in flowers.

☞ The time selected by the Executive Committee for holding the National Convention, at Lexington, Ky., is October 5, 6 and 7, 1881. All beebeepers are invited to attend and take part in the deliberations of the Convention. As Lexington is a central point, the Executive Committee hope to have a large attendance from the North, South, East and West, and from Canada, and that the 12th annual meeting of the North American Bee-Keepers' Society will be the most interesting meeting that the bee-keepers of the United States have ever held.

N. P. ALLEN, *Pres.*

Kentucky Bee-Keepers' Association.—The second annual convention of the Kentucky State Bee-Keepers' Association, will be held in the Exposition Building, in Louisville, Ky., on Wednesday and Thursday, Oct. 12 and 13, 1881.

A fine display of bee-keepers' supplies, honey, etc., is expected, and some of the most prominent bee-keepers in America, who will be in attendance at the National Bee-Keepers' Convention, at Lexington, Oct. 5, 6, and 7, are expected to attend. All are invited. N. P. ALLEN, *Pres.*

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. MILLER, M. D., *Pres.*
C. C. COFFINBERRY, *Sec.*

☞ The Western Michigan Bee-Keepers' Association will meet in Berlin, Ottawa, Co., Mich., Thursday, Oct. 27, 1881, in Huntley's Hall, at 10:30 a. m. All interested, are cordially invited.

WM. M. S. DODGE, *Sec.*
Coopersville, Mich., Aug. 29, 1881.

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. GOODNO. *Sec.*

Bee-Keepers' Union.—The Eastern New York Bee-Keepers' Union Association, will hold their eighth semi-annual Convention on Tuesday, Sept. 27, 1881, at 10 a. m., at Knowersville, N. Y. All bee-keepers are invited to attend. W. D. WRIGHT, *Pres.*
N. D. WEST, *Sec.*

☞ The South Eastern Mich. Bee-Keepers' Association, will hold its 4th meeting at the Court House, in Ann Arbor, Wednesday, Oct. 5, 1881, at 9 o'clock a. m.; the week of the County Fair. An adjourned meeting may be held during the week. All interested are invited to attend. By order of the Executive Committee.

N. A. PRUDDEN, *Chairman.*

☞ The North Eastern Wis. Bee-Keepers' Association, will hold its fall meeting at Peewaukee, Wis., on Tuesday and Wednesday, Oct. 11 and 12. A full attendance is cordially requested. Notice of the plauce of meeting will be found at the local Post Office.

GEO. CHURCH, *Pres.*, Neenah, Wis.
FRANCES DUNHAM, *Sec.*, Depere, Wis.

South Western Iowa Bee Association.—The regular annual meeting of this association, will occur at the apiary of James T. Fife, in Jasper township, near Corning, Iowa, on Thursday afternoon, Sept. 29. The place of meeting is such that the topics considered will be practically demonstrated. Following is the programme: Business of Society; raising of queens; introduction of queens; dividing of bees; practical handling of bees. A full attendance is desired.

J. T. FIFE, *Pres.*
W. J. OLIVER, *Sec.*

☞ The Eastern Michigan bee-keepers' Association will hold its fall meeting in Detroit, Oct. 4, in the Y. M. C. A. hall, at 10 o'clock a. m.

A. B. WEED, *Sec.*

☞ Owing to the fact that the time of the regular meeting of the Union Bee Association, at Shelbyville, Ky., conflicts with the time fixed by the executive committee, to hold the National at Lexington, the meeting of the Union, at Shelbyville, has been postponed till the 20th of October.

G. W. DEMAREE, *Sec.*
Christiansburg, Ky., Sept. 3, 1881.

☞ The Rock River Valley Bee-Keepers' Convention, will be held at Monroe Center, on the third Tuesday in October. We hope a good attendance will be the outcome, and the bee interest revived.

D. A. CIPPERLY, *Sec.*

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.
N. E. FRANCE, *Sec.*, Platteville, Wis.

SELECTIONS FROM OUR LETTER BOX

Amount of Honey Needed for Winter.—I have 6 colonies—3 are Italians and 3 are hybrids. The Italians done a great deal the best. Please answer: How many lbs. of honey are plenty for a colony to winter on in the cellar, and how much on the summer stand?
CHAS. A. PONTIUS.
Canton, O., Sept. 8, 1881.

[For an ordinary winter, in the cellar, 20 to 25 pounds should be sufficient; on the summer stand, 25 to 30 pounds. In either case, 5 pounds more is better.—ED.]

California Honey Crop.—In the BEE JOURNAL of Aug. 24 (just at hand), you quote from the San Francisco *Examiner*, the information that southern California will have an average crop of honey this year. This is not so; as not one in ten of the bee-men will have a pound of surplus. We were very fortunate in securing about 900 lbs. from 140 colonies, but will have to feed this winter.
HOLMES & SCOTT.
Los Angeles, Cal., Aug. 30, 1881.

Maine Items.—Inclosed find specimen of plant which the bees work on early and late. It grows in my bee-yard with the spider plant and Simpson honey plant. Although in full bloom, I have seen no bees on either of them, but plenty of hornets on both. What is the matter with the highly extolled spider and honey plants? There is doubtless honey in them; I have seen the drop of honey in the spider plant, and as the wasps are on the other, there must be honey in it. I would like the name of the seecimen I send. We started a bee-keepers association—the first in Maine—called the Northeastern Bee Association. The yearly meeting is held the second Tuesday in February. We have held three quarterly sessions, which were very interesting. Bees have done well here this season. I started work last spring with 26 colonies, run them for honey all I could, have had 10 natural and 4 artificial swarms. My bees are mostly blacks—having 3 Cyprian and 2 Italian queens. I shall have about 1,000 pounds.
LUCIAN FRENCH.
Sangerville, Maine, Sept. 3, 1881.

[Mr. French sends an aster. I suppose the reason that the bees did not visit the figwort and spider plant was that they found something they liked better. The bees worked well on our Rocky Mountain bee plant until fall bloom, when they left it altogether.—A. J. COOK.]

Great Trotting Week at Lexington.—Believing, as I do, that many bee-keepers are interested in the best strains of horses, as well as bees, I take pleasure in announcing through the BEE JOURNAL that the Fall Trotting Races commence here on Tuesday, Oct. 4, and continue four days, so that those who attend the North American Bee-Keepers' Convention, and desire to see the best strains of Kentucky horses trotting on their "native heath," will have an opportunity to do so. The prospects for a large and enthusiastic attendance at the National Convention are very flattering. The following are among the most prominent from a distance who have signified their intention to be present: D. A. Jones, of Canada, the "Bee King of the Islands," I might dub him; Dr. J. P. H. Brown and lady, of Augusta, Ga.; Mrs. Frances Dunham, of Wisconsin; C. C. Coffinberry, of Chicago, Ill.; Chas. F. Muth, of Cincinnati, O.; and Mrs. L. Harrison, Peoria, Ill. I should be pleased to hear from others.
W. WILLIAMSON,
Vice President for Kentucky.
Lexington, Ky.

Autumn Honey.—The present exceptionally dry season, in strong contrast to the very wet season a year ago, shows clearly that a dry season is far less detrimental to the apiarist. than a wet one. Last year we got very little honey, while this year we have a large yield of beautiful autumn honey. We have increased from 5 to 12, and shall get from 500 to 600 lbs. of honey.
A. J. COOK.
Lansing, Mich., Sept. 10, 1881.

Well Sold.—I have just sold a part of our crop of honey at 22 cts., put up in our patent caps. I have sold to the same party for the last 3 years.
J. E. MOORE.
Byron, N. Y., Sept. 10, 1881.

[That is a *good* sale. It is always desirable to *keep*, as well as to *get* customers. It is so much more pleasant to deal with those we know and have had experience with.—ED.]

Those Italian Bees in Australia.—I have transferred the 2 colonies of Italians received from Mr. A. H. Newman, of Chicago, on July 2d. I found in both hives the combs in the center frames had been forced sidewise from their original frames, in such a manner as to lead to the frame adjoining being attached to the comb intended for its neighbor. I transferred them without separation, and without the long-coveted satisfaction of the sight of an Italian queen. I shall eventually separate them, when I can do so without danger of robbing. The number of bees in each colony is small. They fly briskly every day, a few returning with pollen. It seems to me that the damage to the combs must have occurred on the journey by rail from Chicago to San Francisco, when they must have been exposed to more rough usage than on the sea voyage. I cannot but think that it would have been an improvement, if the combs had been secured to the frames by wire or other fasteners.
S. MACDONNELL.
Sydney, Australia, Aug. 8, 1881.

[We are informed the weather was excessively hot when the bees were shipped from Chicago, and presume the combs softened before reaching San Francisco. Of course the colonies were depleted of all the field-workers possible before shipping, and if they reached their distant destination with bees enough to cover three frames each, they done remarkably well. As they were bringing in pollen on the 8th ult. (which is pretty positive proof that they have commenced breeding), they will now soon breed up. We think wooden binders much better for fastening in combs for shipping than the wires, for various reasons.—ED.]

Drone Eggs from Young Queens.—In addition to the editorial reply to Mr. A. B. McLavy, page 292 of the BEE JOURNAL for Sept. 14, I would say that the young queens often lay drone eggs even in worker cells for the first few days of their laying. They do not have ready control of the muscles which control the spermatheca, and so the required sperm cells are not forced on to the eggs. Young birds and insects often have to try awhile before the muscles of flight will work, so this lack of power in the young queen is not anomalous.
A. J. COOK.
Lansing, Mich.

Better than Expected.—When I last wrote you (in August), the probabilities were that I would have to feed my bees; but since then the honey yield has been better. I will now secure from my Italians about an average of 30 lbs. of comb honey from each stand, and will leave the bees very strong for winter. My 1 colony of black bees finally died. They were not worth their trouble.
DAVID HIGBEE.
Avoca, Iowa, Sept. 14, 1881.

Light Basswood Yield.—I had 45 colonies of bees in the best condition of any I ever had during basswood bloom, yet I only obtained about one barrel of basswood honey; it rained continuously. I have but 1,200 lbs. for the season's work.
JAS. E. CADY.
Medford, Minn., Sept. 8, 1881.

Another of H. A. Burch's Customers.—I am one of the unfortunate ones in the H. A. Burch & Co. swindle. As they were highly recommended by Jas. Heddon, I supposed them to be all right, and sent them $5.75 for 6 queens on April 25th, queens to be shipped on or before June 20th, or the money to be returned. I do not receive either money or answer to my letters. Would it not be best, for all who wish, to join in a lawsuit against said firm, get a judgment, then keep an officer to watch them, and as fast as anything shows itself to fasten upon it and sell it to satisfy such judgment? It strikes me he would rather settle up than have a judgment of this sort, with contingent expenses, over his head.
JAS. E. CADY.
Medford, Minn., Sept. 8, 1881.

[The above letter does serious injustice to Mr. Heddon, who, as we understand the matter, never endorsed H. A. Burch *& Co.*, nor their method of transacting business, but did compliment them on some bees which he purchased from them, and gave them permission to use his name that far only. We fail to see any good that can be derived from bringing suit and obtaining judgment, if H. A. Burch *& Co.* have nothing subject to execution, as the costs of suit would have to be advanced by the creditors, thus "throwing good money after the bad." If, instead of being *unfortunate*, this *firm* have been preparing to defraud their customers, then of course they took precautions to secure their property against execution, and the fact of their referring their victims to Mr. A. I. Root for payment would seem to indicate that Mr. Burch considers it cannot be collected from him by any legal process.—ED.]

Bees Have Done Well.—My bees have done very well, considering the season. They have not gathered as much honey this year as they did last year, although those that did not swarm did well. There is a general complaint of bees not gathering much honey all through this section of country. They swarmed too much to lay up much honey. Where white clover was plenty and close at hand, and where bees had proper care, they have done very well.
THOS. LASHBROOK.
Waverly, Iowa, Sept 12, 1881.

Bees and Honey in Georgia.—The interest in bee culture here is not what it ought to be, and what it would be if intelligently pursued. I have sold all my comb honey in 1 lb. packages this year, for 20 cts., and extracted at 15 cts., and it was spring honey at that, which is always dark. The bees are now storing honey from cotton bloom and goldenrod, which makes the finest honey we get. It is this honey I expect to exhibit at our State fair. I am sowing largely of melilot this fall, and I hope to be able to give a favorable report from the experiment, when it begins to yield honey. If we can only get something that will be to us what white clover is to the northern and western honey producer, we should have the best country in the world for bees and honey. We do not know anything about the problem which so vexes the bee-keepers in the colder sections—wintering bees. I never lost a colony from winter trouble in a movable frame hive, as I can feed, if necessary, any day of the year, and I always try to keep informed as to the condition of every colony. Your criticism on Mr. Root's proposition to make good losses from delinquent advertisers, is to the point. Of course publishers are expected to exercise proper caution, but there, I think the responsibility ends. I think that an honest man would scorn to accept from a publisher what another owed him.
F. N. WILDER.
Forsyth, Ga., Sept. 2, 1881.

Three Hundred Pounds from One Colony.—My bees have done well for me this season. I shall realize from one colony 300 pounds of comb honey, of a fine quality. My importing has been a very great benefit to me.
G. H. ADAMS.
North Nassau, N. Y., Sept. 10, 1881.

The Bee and Honey Show at Baltimore, Md.—My "old reliable" bee hive carried off the first premium; the society's gold medal. My "molded foundation," 1st premium, $3.00; Bingham smoker, 1st do; best colony of bees (Italians), 1st do.; best collection of bees, 1st do.; best crate of honey, 1st do.; best 10 lbs. of comb honey, 1st do.; best collection of honey, 1st do.; best display of honey and bees, 1st premium special. A clean victory. I turned loose 3 colonies on the grounds within 10 feet of horses, and in the midst of a crowd of 13,000 persons, and handled them, removing all the combs, showing them the queen, and without dress, smoke, or anything of any notion to quiet them; not a person reported stung.
CHAS. H. LAKE.
Baltimore, Md., Sept. 12, 1881.

Good Honey Crop.—We have 11,000 lbs. of honey (most all white), and an increase of 143 colonies from 156 in the spring. Crop is cut short on account of severe drouth.
GEO. W. HOUSE.
Fayetteville, N. Y., Sept. 12, 1881.

Cyprian Bees.—I will give a little of my experience with Cyprian bees. I sent to a New York queen dealer last year, for one of the first queens which came from Cyprus, and the dealer said he sent me a choice one. I thought best to test her before breeding from her. Lo! after testing her, I find her progeny to be the best fighters that I ever saw. If the Cyprians are all like mine, I would advise bee-keepers to let them alone, or if they have them, to get rid of them as soon as possible. I am very glad that I did not let them mix with my Italians. I sent the queen back to the queen dealer to-day. He can do as he likes with her.
M. H. MILSTER.
Frohna, Mo., Sept. 13, 1881.

A Ton of Comb Honey from 35 Colonies.—Last spring my bees were reduced to 35 colonies; they increased by natural swarming to 65; they have done very well this season. I have taken off about a ton of surplus honey in sections, and 6 pound boxes. The local demand for honey is good; it sells readily for 18 to 20 cents.
L. F. BIGLOW.
Brooklyn, Wis., Sept. 14, 1881.

Bees in New Jersey.—My bees have done very well this summer. Last fall I had 54 colonies, and by May 1, I had lost them all but 14. I increased to 37 by July 1. I only ran 1 hive for box honey, and that gave me 26 lbs. of comb honey, and 45 of extracted. I intend to let the rest have all they have gathered. We have had no rain since July 4, and everything is dying here. The bees to-day are gathering a little honey from goldenrod, and that will not last long if we do not have rain shortly. Success to the BEE JOURNAL.
JOSEPH W. RIKER.
Mont Clair, N. J., Sept. 8, 1881.

Virgil's Bee Lore.—Virgil says in his Georgics, that the honey bee often takes up stones or ballast on a stormy day. Is this true now?
STUDENT.
Agricultural College, Guelph, Ont.

[I doubt if it was ever true.—WM. F. CLARKE.]

Special Notices.

☞ Single copies of the Journal sent postage paid for 5 cents each.

◆

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

Advertisements intended for the Bee Journal must reach this office by Saturday of the previous week.

◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆

☞ Articles for publication must be written on a separate piece of paper from items of business.

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Photographs of prominent Apiarists—Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

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☞ When changing a postoffice address, mention the *old* as well as the new address.

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☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

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Faded or Gray Hair gradually recovers its youthful color and lustre by the use of Parker's Hair Balsam, an elegant dressing, admired for its purity and rich perfume. 36w4t

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There is More Strength restoring power in a 50 cent bottle of Parker's Ginger Tonic than in a bushel of malt or a gallon of milk. As an appetizer, blood purifier and kidney corrector, there is nothing like it, and invalids find it a wonderful invigorant for mind and body. See other column. 36w4t

◆

A Sample Copy of the Weekly Bee Journal will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

◆

Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the Journal for a year *free*. It will pay to devote a few hours to the Bee Journal.

◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

Premiums.—Those who get up clubs for the Weekly Bee Journal for 1882, will be entitled to the following premiums:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

◆

☞ We have a SPECIAL EDITION of the Weekly Bee Journal, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

Office of American Bee Journal,
Monday, 10 a. m., Sept. 19, 1881.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. I have just purchased a car load of extracted at current prices

We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@21c.

Al. H. Newman, 972 W. Madison St.

NEW YORK.

HONEY—The market is well supplied at present, but there is a large prospective demand.

We quote as follows: White comb, in small boxes, 15@18c; dark, in small boxes, 12@15c. Extracted, white, 10@12c.; dark, 7@9c.

BEESWAX.—Prime quality, 22@24c.

Thorn & Co., 11 and 13 Devoe avenue.

CINCINNATI.

HONEY—Is in good demand here now.

I quote: Good comb honey, in sections, is worth 14@16c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. Muth.

BOSTON.

HONEY.—Our honey trade has now fairly commenced, and we are selling quite freely. We find that one-pound combs are a very desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

Crocker & Blake, 57 Chatham Street.

CLEVELAND.

HONEY—Comb honey continues in good demand at 20c. for 1 lb. white and 19c. for 2 lb. sections. Extracted honey, 10@12c.

BEESWAX—18@20c.

A. C. Kendel, 115 Ontario Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 22c.; grease wax, 12@13c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

SAN FRANCISCO.

HONEY.—Sales of choice comb, to arrive, have been effected at 20c. for small lots. It is doubtful if an order for a large lot of choice comb could be filled in this market. Choice extracted, in barrels, is quotable at 9@9½c

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 9@10½c.; dark and candied, 8c. BEESWAX—23@25c.

Stearns & Smith, 423 Front Street.

ST. LOUIS.

HONEY.—Demand fair. New extracted, 7@9c.; comb, 14@16c.

BEESWAX—Prime yellow sells at 20@21c.

R. C. Greer & Co., 117 N. Main Street.

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX — Best light 23@25c.—*Philadelphia Merchants' Guide.*

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept. 27—Eastern N. Y. Union, Knowersville, N. Y.
N. D. West, Sec. Middleburg, N. Y.
29—Southwestern Iowa, near Corning, Iowa.
W. J. Oliver, Sec.
Oct. 4—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
5—Southeastern Mich., at Ann Arbor, Mich.
5-7—National, at Lexington, Ky.
Dr. E. Parmly, Sec., New York City.
12—Kentucky State, at Louisville, Ky.
11, 12—Northern Michigan, at Maple Rapids.
O. R. Goodno, Sec., Carson City, Mich.
11, 12—Northeastern Wis., at Pewaukee, Wis.
Frances Dunham, Sec., DePere, Wis.
12—Central Ky., in Exp. B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
18—Rock River Valley, at Monroe Center, Ill.
D. A. Cipperly, Sec., Monroe, Ill.
20—Union Kentucky, at Shelbyville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
25, 26—Northwestern District, at Chicago, Ill.
C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.
1882.
Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

ELECTROTYPES

Of Engravings used in the Bee Journal for sale at 25 cents per square inch—no single cut sold for less than 50c. **THOMAS G. NEWMAN,**
974 West Madison Street, **Chicago, Ill.**

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Assorted samples of the four sizes, put inside one another as a nest, price 50 cents. These pails are very useful for many other purposes, after being emptied of the honey by consumers. The following are the prices:

				Per Doz.	Per 100
Gallon, holding	10 lbs.	of	honey....	$1.80....	$12.00
Half Gallon, "	5	"	"	1.50....	9.00
Quart, "	2½	"	" ...	1.20....	7.00
Pint, "	1¼	"	"	.75....	4.00

ALFRED H. NEWMAN,
972 West Madison Street, Chicago, Ill.

The British Bee Journal,

AND BEE-KEEPER'S ADVISER.

The *British Bee Journal* is published monthly at $1.75, and contains the best practical information for the time being, showing what to do, and when and how to do do it. **C. N. ABBOTT,** Bee Master School of Apiculture, Fairlawn, Southall, London.

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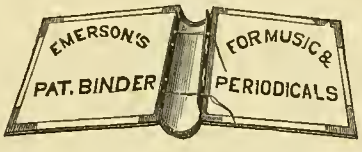

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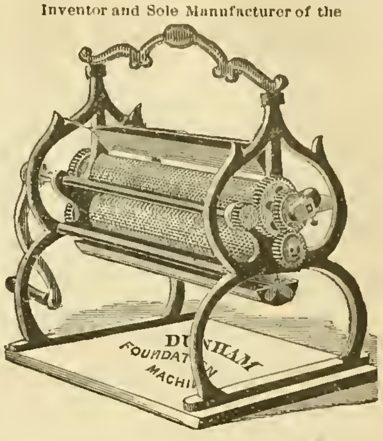

Dunham Foundation Mill,

Patented Aug. 23th, 1881.

☞ New Circular and Samples free. ☜

1smtf FRANCES DUNHAM, DePere, Wis.

W. Z. HUTCHINSON,

Rogersville, Genesee County, Mich.,

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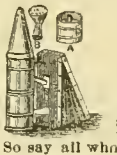

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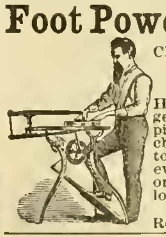

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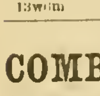

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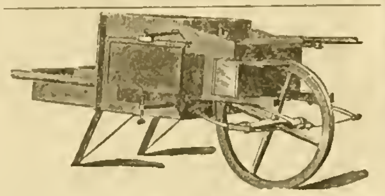

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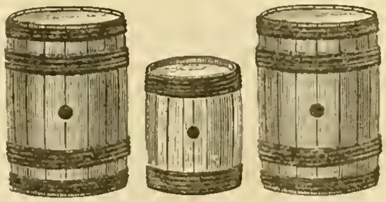

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DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., SEPTEMBER 28, 1881. No. 39.

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EDITOR AND PROPRIETOR,

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Are the Cyprians More Ferocious?

In view of the division of opinion which now prevails regarding the disposition of the Cyprian bee, the following letter from Mr. A. T. Williams, St. Charles, Mo., will be read with deep interest. The writer is a practical bee-keeper of much experience, a shrewd, intelligent observer, perfectly honest and candid in his opinions, and his conclusions are certainly not influenced by prejudice or interestedness:

As a general report on the Cyprian bee seems to be in order, I will give my experience. I make bee-keeping a specialty, and rear but few queens for sale. I received a fine imported Cyprian queen from D. A. Jones early last September, reared about 40 queens from her, sold about 20, and the rest were introduced to full colonies.

They breed very late, and some of them continued breeding so late they used up all their stores and starved; the past winter being so severe it was impossible to feed. I started last spring with 11 Cyprian colonies, including the imported queen. I had no other bees in my home apiary except Italians. My first swarm was from a colony containing a Cyprian queen. Of the 10 colonies, 8 swarmed before I obtained one from the Italians, although I had about 80 in the same yard. From the 10 Cyprian colonies I obtained more surplus honey than from 10 of the best Italians in the whole lot.

This year I have reared over 300 Cyprian queens, and have at present about 200 in full colonies. The queens are more prolific, are a great deal more nervous on the combs, especially the young, unfertile ones, which often fly off the combs when lifted from the hive. The workers are lighter colored on the under side of the abdomen, have a much more nervous disposition, are very easily shaken off of the combs, but will not drop from the corners of the frames as the blacks do. They are very easily disturbed, and will resent any jar of the hive; they will crawl out of the hive, and cannot be driven with smoke as the Italians, but with *very* careful handling they can be manipulated faster than the Italians, as the rapid motions do not seem to disturb them as it does the Italians.

I aimed to rear Italian drones to fertilize the queens, but I think I have had 25 or 30 fertilized with Cyprian drones. They are much crosser than the hybrids, and are not superior in any particular. Some of them are so cross there is no way to handle them; they cannot be induced to fill themselves with honey, but when once aroused will run and fly out of the hives, are more rapid in their motions, will sting as no other bees except Egyptians can, will go long distances from their hives to enter buildings and attack, and they require a long time to get quieted down.

They are much easier to get in an abnormal condition; to deprive them of their queen all seem to realize their loss, and set to work to construct queen cells; will rear more queens, and they will average better than those reared by Italians. I believe the superior prolificness of the Cyprian queens is attributable to the extra care taken of the cells. I have for years chosen the crossest colonies of bees I had to rear queens, and with the best results. I claim a very quiet, industrious colony of Italians will not build as many cells, and the young queens will not average as good as we can get from a nervous, excitable colony of hybrids. On this very point the Cyprians do excel.

I believe the Cyprians are destined to prove superior to the Italians in prolificness of queens, better to enter surplus boxes, easier to shake from sections and combs, and earlier to breed in spring. The only objection to them is their disposition. I am undecided at present whether I will continue to breed them or return to the Italians. If I should keep the Cyprians, I will try and have choice Italian drones to fertilize all my queens, and rear no Cyprian drones.

It will be seen that Mr. Williams fully corroborates the opinion expressed in the BEE JOURNAL of Aug. 10, page 252, regarding the disposition of the Cyprians, and this is also borne out by the testimony of others. It is easy to imagine that the queens of those who have found the bees so very gentle and tractable have mated with Italian drones, and thereby inherited that amiable disposition which will always make the better Italians a general favorite.

There is great unanimity in the testimony of those who have crossed the Cyprian stock with the Italian drones. They lose none of their vigor, they are easily removed from the combs, their industry is not diminished, and their beauty is unimpaired. The distinctive traits of the Syrian or Palestine bees are quite similar to those of the Cyprians, and so far as our observation extends, the result of the cross with the Italian drones is a decided improvement. How far it will be practicable to rear Italian drones for this purpose we are at a loss to determine; but imagine, in an apiary well stocked with Cyprian or Syrian queens it will be an impossibility to suppress their drones, on account of earlier breeding and swarming, and, hence, their earlier drone-rearing proclivities. If, as seems to be the case, they build proportionately more queen cells when made queenless or preparing to swarm (the queen-rearing and drone-rearing instincts being analogous), do they not also rear more drones than the Italians?

The disposition to breed later in the fall and earlier in the spring will, in Northern localities, prove an advantage; but in central and Southern latitudes it will be a serious objection, as in the majority of winters breeding will be kept up without intermission, and starvation be the result, unless an extra allowance of stores is provided. During an unfavorable honey season this in many cases would be impracticable, in any latitude.

If it should prove, after a full and thorough series of investigations, that the tongues of the Syrian and Cyprian bees are of sufficient length to take the nectar from red clover blossoms, and it should be demonstrated practicable to rear Italian drones with which to modify their irrascible dispositions, then these new races will prove an invaluable acquisition to our favorite profession, and the further search for the "coming bee" will be closed with the glad refrain, "*Eureka! Apis Americana!*" But unless their dispositions can be modified, they may bring bee-keeping into disrepute in thickly populated communities, and cities and towns will unite in indicting us for establishing and maintaining nuisances in their proximity.

* * *

☞ We learn with regret that the Rev. L. L. Langstroth's health is again failing. In a private note to us he says: "I am unable to take any interest in bee matters." We much regret this announcement, and hope that his life may be prolonged and be more cheerful as the years roll along.

Extracting from Surplus Combs, etc.

Mr. James Nipe, of Spring Prairie, Wis., addresses us as follows:

I would like to inquire, through the BEE JOURNAL, the best way and time after the honey yield stops to extract the surplus, where run for extracted honey? Is it best to extract from the upper story as soon as ripe, and return the combs to the hives, or wait a few weeks till cool weather comes and the bees are reduced in numbers, then remove the honey and the upper stories at the same time, and save once handling? Would they not carry too much below, if left that long?

Will it do to winter a colony of bees that cover 6 combs, on 3 combs nearly empty and 3 filled full and capped? My brood combs will be left pretty empty, and I shall be obliged to give winter supplies from the surplus.

This summer I put combs containing moths into my hives; if I am in a hurry, the bees will clean them out cheaper than I can. Such combs must only be put in strong colonies.

As soon as the honey yield has ceased do your extracting, so as to give the bees all the time possible for putting their homes in order for winter. Many bee-keepers of large experience do their extracting at stated periods during the season, or as fast as the yield from each species of blossom has entirely ceased, and this is quite necessary where it is desirable to properly grade and brand the honey. It is a very difficult matter to sell honey as white or sweet clover, if the purchaser can detect one-fourth or one-half of it as linden, and much buckwheat mixed in will detract from the appearance and price of heartsease and goldenrod honey. We are of opinion, also, that more honey will be obtained where extracted as soon as the second story is comfortably filled and properly ripened, as the bees will work with more vigor, and entertain less thought of swarming.

There need be little fear of the bees carrying too much honey below, for it can be easily detected when you overhaul your hives to prepare the bees for winter, and can remove some to give the queen room to breed till the last moment. This preparation should be attended to during the last of September or first of October.

Three empty combs are too many to leave in the hive, where there are sufficient bees to cover six frames. We would prefer the other extreme: *i. e.*, one empty comb, four frames of honey, and spread the five to occupy the space of six. If a little honey is left in the hive in spring it will do no harm, but too many empty combs in midwinter impede the passage of the bees to the different depots of food.

Of course, the removal of moths, cleaning moldy and soiled combs, or any other drudge-work, should always be imposed upon the stronger colonies.

The Honey Harvest in Scotland.

We have received the following from Mr. John D. Hutchison, dated at Glasgow, Scotland, Sept. 10, 1881:

> The honey harvest in Scotland may now be looked upon as a complete failure. No doubt there has been a little clover honey gathered in some quarters; but as regards heather honey, it may be safely said that it will be *nil*. This is very much to be regretted, seeing that the honey harvest is also deficient in other countries. So we may not expect to have much imported to us. The average crop of honey gathered here annually may not be very much, but what is gathered is always famed for its superior quality, especially the heather honey. Throughout the whole summer we have had nothing but wet and showery weather, and owing to the want of sunshine, it has retarded the labors of the bees very much.

More rapidly, even, than we anticipated, is the foreign outlet for American honey being developed. We have no doubt our producers could profitably export, this season, five times the amount of surplus they can possibly spare. By glancing at our home market reports, it will be observed the tendency of prices is upward.

Melilot Clover for Stock Pasture.

Prof. C. E. Thorne, of the Ohio State University, has given the following highly encouraging endorsement of all we have ever said regarding our favorite honey plant. In fact, the Professor goes further than we had dared to, in the face of the many unfounded prejudices existing against it. The Professor says:

> It will grow quite luxuriantly in hard poor clay, where even white clover will scarcely live at all, and grows much more rapidly than red clover in any soil, while in the soils that are, as is said, "Clover-sick," it thrives as well as anywhere. It is a good forage plant for bees and for cattle, and is well adapted for soiling, as it makes a growth of 4 to 6 feet during the season, and is said to bear 2 or 3 cuttings. A German analysis gives its hay a feeding value of $15 per ton as against $16.28 for very good red clover hay. While red clover, upon which our farming in many sections, and especially in clay lands, depends so essentially for crops of grain, is becoming more and more uncertain. It would seem to be worth while to try this "fast weed" as a resource for recuperative green manuring, in heavy soils especially.

To sum up, it is worth more to the farmer for soiling than red clover, because of its thrifty growth; it is a more reliable pasture for cattle, sheep, etc., than red clover, because it will thrive on soils where red clover sickens; it will yield equally as much fodder as red clover, because it will stand two or three cuttings; and it lacks but 7 per cent. of the nutritious properties of red clover. We can add, we believe it is worth the cost of cultivation to the bee-keeper, for honey alone, even though he is not the possessor of a four-footed animal, because its flow of nectar is not affected by atmospheric changes, as is the case with many plants, notably white clover and linden.

☞ At last the great drouth is broken by copious rains all over the country. It has been a cruel drouth, destroying much vegetation and fruit, but there are some compensations; while this year it has damaged our crops, it will for the next season make the land more fertile. An exchange remarks: "The evaporation from the surface of the ground brought up water from a great depth, and this came charged with lime, potash and the phosphates, and, as the water went off in the form of vapor, these were left in the surface soil."

☞ President Garfield is dead. The hand of an assassin has ended a career that might have been a great blessing to the country at large. He died at Long Branch, N. J., on Sept. 19, at 10:35 p. m., after a severe struggle for life for almost 80 days. He was taken to Washington last Thursday, and was buried at Cleveland, O., on Monday, Sept. 26. Vice President Arthur has now become President.

The whole Nation is wrapped in habiliments of woe. The great heart of fifty millions of Americans is touched; as the heart of one, it mourns the untimely death of him it had learned to love.

Not only does the people of the United States deplore this sad event, but Canada sent her representatives to the funeral, and donned the garments of mourning. England, too, keenly feels the blow. Her majesty, Queen Victoria, telegraphed to her representative in Washington to place a handsome wreath on the coffin, sent a personal message of consolation to the widow of our revered President, and ordered her Court into mourning for 30 days.

All the Nations of the world have signified their abhorrence of the dastardly deed of the assassin, and sympathize with us in our loss.

Let us hope that the kind and fraternal feeling of the World towards America may never again be marred by war and its consequent evils.

The Funeral in Cleveland, and funeral processions in all the large cities have suspended business, and are unmistakable proofs of the *real* grief of the Nation.

"God reigns, and the Government at Washington still lives." Sixteen years ago, when Abraham Lincoln lay dead by the hand of an assassin, he who sleeps the eternal sleep, uttered these words, and it is well for us to remember them now. The country is safe, the Government still lives, and a people which has borne up thus long will meet the emergency as a brave people should meet it.

☞ Those contemplating a trip to Lexington, Ky., to attend the National Convention, would do well to determine on the route and procure their tickets in season.

The Cincinnati Southern Railway is the direct line from the North and South to Lexington. Three trains leave Cincinnati daily—at 8:30 a. m., 4:00 and 7:25 p.m., arriving at Lexington at 11:32 a.m., 7:15 and 10:00 p.m. Trains leave Chattanooga at 5:00 a.m. and 7:30 p.m., arriving at Lexington at 3:21 p.m. and 4:26 a.m.

TWELFTH CONVENTION
OF THE
North American Bee Keepers' Society
TO BE HELD IN THE
Odd Fellows' Temple, Lexington, Ky.,
COMMENCING ON
WEDNESDAY, OCTOBER 5, 1881.

☞ The time selected by the Executive Committee for holding the National Convention, at Lexington, Ky., is October 5, 6 and 7, 1881. All bee-keepers are invited to attend and take part in the deliberations of the Convention. As Lexington is a central point, the Executive Committee hope to have a large attendance from the North, South, East and West, and from Canada, and that the 12th annual meeting of the North American Bee-Keepers' Society will be the most interesting meeting that the bee-keepers of the United States have ever held.

N. P. ALLEN, *Pres.*

Report of Committee of Arrangements.

The Convention will be held in the Odd Fellows' Temple, East Main Street, between Market and Mulberry Streets.

The special reduced rates at hotels are as follows: St. Nicholas hotel, directly opposite the Odd Fellows' Temple, $1.40 per day: Ashland House, $1.50 per day; New Phœnix hotel, $2.50 per day (regular rate). All of the above are first-class hotels. Parties desiring private board, at $1 per day, can address a postal card to W. Williamson, Lexington, Ky.

Railroad fares are as follows: C. H. & D. Railroad, to Cincinnati; Dayton & Michigan, to Cincinnati; C. H. & Indianapolis, to Cincinnati; Cincinnati, Richmond & Chicago to Cincinnati, Cleveland. Columbus & Indianapolis,—all full fare one way, one cent per mile returning. Cincinnati Southern Railroad, Cincinnati to Lexington and return, $4; all intermediate or local stations 2½ cents per mile each way; from Chattanooga to Lexington and return, 2 cents per mile each way. Kentucky Central Railroad and Lexington & Big Sandy Railroad, all stations between Cincinnati to Lexington and Mount Sterling and Lexington, 2½ cents per mile each way; Louisville C. & Lexington R. R., 2½ cents per mile each way.

A letter from the general passenger agent says: "At the time the Convention meets the Exposition in Louisville will be in full blast, and you can take advantage of the low rates made to the Mammoth Cave at that time." The regular rates to parties of 25 is $5.50 for the round trip; but no doubt the excursion rate will be far below this figure. When a party of 10 is formed, the hotels and proprietors of the Cave make a reduction of 25 per cent. off regular rates, which are: Hotel, $3 per day; Grand Route in Cave, nearly 20 miles, $3 each, including guides, etc.; Short Route, nearly 8 miles, $2; Chief City, 5 miles, $1; Mammoth Dome, 3 miles, $1; White's Cave, 2 miles, $1; the Grand Route includes all.

We should be pleased to receive a postal card from all who think they will attend, with suggestions that may be of interest.

If 100 or more wish to visit "High Bridge," the highest bridge in the world, at the low rate of 50 cents for the round trip, they may do so. This bridge is situated 22 miles south of Lexington, on the Cincinnati Southern Railroad, and spans the Kentucky river, surrounded with romantic scenery of natural beauty. If found necessary the Convention can adjourn on Friday morning, the 8th, at 10.30, as the train leaves Lexington for High Bridge at 11.30, and returns at 3.21, giving about 2 hours at the bridge; those going north to Cincinnati need not leave the train.

The Cincinnati and Louisville Expositions will both be in progress. Those who can possibly do so are cordially invited to attend the Ky. State Bee-Keepers' Convention, which meets in Louisville Exposition Building, Oct. 12.

CHAS. F. MUTH, Cincinnati, O.
WM. WILLIAMSON, Lexington, Ky.

☞ Those sending articles for exhibition will please prepay freight or express charges, and send plain directions how to be returned; if desirous of selling them, attach a card stating the lowest price in plain figures. I will cheerfully and impartially attend to exhibiting queens, bees, hives, and other implements for the apiary, of any kind, free of charge. I will exercise all due care, but will not be responsible for losses of queens or bees by death or accident. WM. WILLIAMSON.

PROGRAMME.

WEDNESDAY, OCT. 5.

MORNING SESSION.

10 to 12.—Convention called to order.
Reading minutes of the last meeting.
Reading of correspondence.
Calling the roll of members for last year, payment of annual dues, receiving new members, and distribution of Badges.
President's Annual Address.
Reports of Secretaries, Treasurer, Standing Committees and Vice Presidents.

AFTERNOON SESSION.

1 to 5.—Appointment of committee to nominate officers for the coming year, to report Thursday morning.

Addresses to be Followed by Discussion.

The New Bees—
Prof. A. J. Cook, Lansing, Mich.
Foul Brood among Bees—
C. F. Muth, Cincinnati, O.
Can Honey be made a Staple Product?—
C. C. Coffinberry, Chicago, Ill.
Report of honey crop for 1881.

EVENING SESSION.

8 to 9.30.—Receiving new members.
Miscellaneous business.

Addresses to be Followed by Discussion.

Wintering—C. J. Robinson, Richford, N.Y.
The Cultivation of Honey Plants—
W. T. Stewart, Eminence, Ky.
Progressive Bee-Keeping; or the Stepping-Stones toward Perfection—
Thomas G. Newman, Chicago, Ill.

☞ The rest of the evening will be devoted to a social interchange of views between those present on any topics desired.

THURSDAY, OCT. 6.

MORNING SESSION.

9 to 12.—Report of nominating committee.
Election of officers and Installation.

Addresses to be Followed by Discussion.

In-Breeding—P. P. Collier, Mexico, Mo.
Bee-Culture—past, present and prospective—Rev. L. Johnson, Walton, Ky.
The Different Races of the Honey Bee, and their Geographical Distribution—
Dr. J. P. H. Brown, Augusta, Ga.
How to Prevent Swarming—
C. P. Dadant, Hamilton, Ill.
Obstacles to Progressive Bee-Culture—
G. W. Demaree, Christiansburg, Ky.

AFTERNOON SESSION.

1 to 5.—Balloting for time and place of next meeting.

Addresses to be Followed by Discussion.

A free-and-easy, go-as-you-please Recital of a Bee-Keepers' Holiday—
Rev. W. F. Clarke, Listowel, Canada.
Wintering Bees in Texas—
Dr. Wm. R. Howard, Kingston, Texas.
Swarms vs. Comb Honey—
Dr. C. C. Miller, Marengo, Ill.
My Experience; or How I Learned to Handle Bees Profitably—
Dr. E. Drane, Eminence, Ky.
Dysentery in Bees and Its Causes—
W. Thomas, Adelphi, Ohio.

EVENING SESSION.

8 to 9.30.—Miscellaneous business.

Addresses to be Followed by Discussion.

The Honey Bee and its Relation to the Science of Economics—
Hon. Melville Hayes, Wilmington, O.
Social Interchange of Views on Miscellaneous Topics by those Present.

FRIDAY, OCTOBER 7.

MORNING SESSION.

9 to 12.—New business, resolutions, etc.

Addresses to be Followed by Discussion.

The Origin of the Present Races of Bees—
E. E. Hasty, Richards, O.
The Wintering of Bees—
C. F. Muth, Cincinnati, O.
Is Bee-Culture a Suitable Employment for Women?—Mrs. L. Harrison, Peoria, Ill.
Bee-Keeping as a Business, or the Sole Vocation of an Individual—
W. J. Davis, Youngsville, Pa.

AFTERNOON SESSION.

1 to 5.—Reading of correspondence.

Addresses to be Followed by Discussion.

Breeding to Improve Bees—
C. J. Robinson, Richford, N. Y.
The Influence of Honey on Wintering—
Chas. Dadant, Hamilton, Ill.
Honey Bee Literature—What it Is, and What it Should Be—
Judge W. H. Andrews, McKinney, Tex.
An Essay (subject not yet stated)—
A. J. King, New York City.
Essays are expected from Wm. Carr, Newton Heath, England, and other European apiarists.
Final business, and adjournment.

CORRESPONDENCE.

For the American Bee Journal.

Honey the Proper Food for Bees.

A. R. KOHNKE.

Prof. Reklam writes in his paper, *Gesundheit* (Health): "Bee-keeping deserves recommendation not only on account of the gains derived from the sale of honey and wax, but much more so because it furnishes a food for man which is not excelled by any other as regards digestibility and nourishing qualities; for it is taken up by the blood vessels like water, without decomposition or other chemical change in the stomach, and thus serves as food without a particle of waste matter, entering the animal tissue at once in a most available form."

This being the case not only with man, but also with bees, we can see why young bees, which live only on honey, need not leave the hive to void their excrements before the 10th or 14th day. Only after their store of nitrogenous compounds in the body is exhausted by the secretion of food through the glands in the head to feed the larvæ, it is that they are compelled to resort to nitrogenous food contained in pollen.

This leads me to consider Mr. Heddon's theory, advanced in the Bee Journal of Sept. 7, page 283, as the only probable cause. I had the good fortune last summer to stay with Mr. Heddon about 2 months, during which time we discussed the bacteria question quite often as being the cause of dysentery. Mr. Heddon had observed that the colonies which were deficient in stores, hence had to be fed in the fall, generally escaped the disease; those which had enough, or even more, were the worst affected. Now, as feed for the light colonies, Mr. Heddon used a solution of the very best white sugar and honey, which was boiled to nearly the consistency of honey. Those colonies generally wintered well, furnishing a very plausible reason for his theory, for he reasoned thus: "If I boil the food for the bees they are to winter on, they do well; if not, many of them are diseased, hence it must be bacteria, which are killed by the boiling process, and remain alive in natural stores gathered by the bees." This being his experience for a number of years, it is natural enough to guess at the theory he first advanced, although I considered it as not probable.

Mr. Heddon arrived at his latest conclusion, he states very explicitly, by actual ocular observation. He has seen an excess of pollen in such colonies as have been effected or died with the disease, and puts the question, "How can we prevent the bees from an undue consumption of the pollen, if not by robbing them of it?"

Now it appears to me that the undue consumption of pollen, in a cold winter permitting no flight, is only a secondary (though immediate) cause of dysentery, it being a result of a primary cause. Which bees in a colony eat pollen, and for what purpose? are the next questions to answer. It is known that the most pollen is consumed when brood is reared. It is also known that brood-rearing is mostly done by young bees. There are some few facts known by scientific men and bee-keepers of which the average apiarist is ignorant. Some of these facts relate to the salivary glands in the head of the worker bee. It will be found on dissecting a young bee, that the largest glands are in the head, and secrete the food for the young larvæ; this food or secretion is the so-called royal jelly (which Mr. Robinson pronounces semen), and is furnished to larvæ of the worker bees in limited quantities to prevent an undue development of the sexual organs; before sealing the cells containing the larvæ, they are supplied with a store of honey and pollen.

The feeding of the larvæ with this jelly soon exhausts the young bees, and to restore the lost nitrogenous compounds, they have to resort to eating pollen to keep up this secretion, until finally the glands, by the constant drain on them, are too weak to fulfill their office, when the young bees leave the hive to gather honey and pollen, if there is any. On examination, it will also be found that in old bees these glands are all shriveled and dried up. Some will ask, What has all this to do with dysentery? Everything, as will appear by the following: Toward spring bees commence to breed. If there are not a large number of young bees the old bees must act as nurses, being enabled to do so only by consuming large quantities of pollen. If they can fly now and then no harm will follow; if not, dysentery or spring dwindling is certain. Pollen the bees must have if they are to breed, but if there are plenty of young bees, they will not consume more than necessary.

To prevent dysentery and spring dwindling we want young bees; to get them, we must induce late breeding by feeding, if the honey flow is scant in the fall or stops suddenly quite early. It will thus be seen why Mr. Heddon's fed colonies generally wintered better than those not fed.

Youngstown, O., Sept. 9, 1881.

For the American Bee Journal.

The Golden Honey Plant.

G. L. TINKER, M. D.

We have growing extensively in this section the greatest honey producing plant for August and September that can be found anywhere. It eclipses buckwheat, goldenrod, asters, Spanish needles, and every other fall plant for both honey and pollen. From the first day of August every year the bees take to it and work on nothing else as long as it blooms. This year, owing to the drouth, it failed about the first of September, but all through the hot and dry weather of August it bloomed in great profusion, and the bees worked upon it from early morn till dark, making their trips of two miles (the nearest large patch of perhaps 20 acres) with all the excitement of a white clover harvest. I passed the field several times, and it was at all hours of the day swarming with bees—my Italians and the blacks from neighboring hives.

Some colonies gathered 10 to 15 lbs. of box honey from it, and some that I divided filled 4 full frames, besides filling and sealing up the balance of the frames. The honey is a beautiful, transparent, golden-yellow color, having a rich, aromatic taste, and might well pass for "wild honey." It colors the capping somewhat, but gives the honey a rich appearance. For the table I prefer it to white clover or basswood, on account of its fine flavor.

It produces seed in great abundance, and seems to be increasing on our river bottoms and the adjacent hill-sides every year—the seeds being scattered by high water every spring. It will grow luxuriantly anywhere, and once established in a locality, it continues to grow there every year, among trees or in the open fields, to the exclusion of all other plants.

The plant grows from 5 to 8 feet high, throwing up several stalks from the same root, and branching out into large corymbs of beautiful yellow flowers, that in a large field makes a perfect sea of continuous bloom.

I believe that it can be cultivated to great advantage to the apiarist, and once a field is set with it, it will remain from year to year without further attention, and furnish every year the very best quality of honey for the bees to winter upon and for the table. The pollen is a fine golden-yellow, and abundant. As no common name has been given to the plant in works upon botany, I have named it the "golden honey plant" (*Actinomeris squarrosa*).

If our bee-keepers are to cultivate any plant for honey alone, I really think that I have not rated the plant high enough, but that it will prove the one great fall honey plant, and supersede all others as its virtues become known. I send a packet of the seeds.

New Philadelphia, O., Sept. 16, 1881.

[We have received the packet of seeds, which we shall plant next season. Every bee-keeper should make a point of lending encouragement to the development of new honey plants, as sometimes the more popular varieties are not suited to all climates and soils.—Ed.]

For the American Bee Journal.

Italian and Cyprian Bees.

CHAS. DADANT.

Several years ago I read an article, in which the writer said that a queen was worthless after having laid 200,000 eggs, and that queens could not live more than 1 or 2 years, and some even less. According to my experience, queens can live 3, 4, and even 5 years, some being prolific all the time. The writer of that article was one of those who used to put the color of the bees above all other qualities, and I wrote an article to warn the bee-keepers against this pernicious idea.

Having imported ¾ of the Italian bees introduced into this country, and wintering many every year in our own apiaries, I feel that I am entitled to give my views in this matter. The queens that we received from Italy were not as bright in color, and their bees were darker than those of their daughters, after a succession of 2 or 3 generations, reared with a careful selection as to color. But such a one-sided selection was not to be followed without regard to the other qualities, for, according to our experience, and that of hundreds of others who had written to us on the same subject, the leather-colored imported queens, and their leather-colored progeny, were more prolific, more hardy, more long-lived, than were those of the very yellow bees. It is for honey that we keep bees, and not for beauty.

My article was considered by many bee-keepers as drumming for the sale of our bees, some people being unable to understand that one cannot be moved but by selfish motives.

Mr. Demaree was the most eager against the dark or leather-colored Italian bees, and in his writings, as well as in the Bee Conventions, he denounced them as hybrid bees, *full of vindictiveness, and always ready to fight* (Bee Journal, Nov., 1880, page 520).

I would be pleased to know where he obtained such a notion. I have never had a complaint on the bad temper of the imported bees we have sold, and Mr. Demaree does not speak from experience, as he never bought a single queen from us. His assumption that the leather-colored bees from Italy are vindictive, was born in his imagination.

In the Bee Journal for Sept. 14, page 294, he continues his accusation against the leather-colored Italian bees, imagining that the bad temper of our Cyprians comes from their mixing with the dark Italian bees. Let me advise him to read, in the same number of the Bee Journal, page 291, what the Rev. Mr. Clarke says:

"I am not enamored with the Cyprians; their temper is unamiable. I had the pleasure of seeing a Cyprian colony make Mr. Jones beat a hasty retreat. It was a pleasure, because he ridicules my veil, which enabled me to stand my ground, while he was forced to flee."

No doubt the Cyprian bees can be handled by selecting the day, the weather, and the hour which will suit them. Had we but 30 colonies to handle, as is the case with Mr. Demaree, such a selection of circumstances would be easy; but we have 5 apiaries, in 4 of which we have Cyprian bees. When we have resolved to perform certain operations in one of our apiaries, and have made the journey, it would be very irksome to be delayed on account of the weather being unsuitable to the handling of our Cyprian colonies. We want to master our bees, not to be mastered by them.

Mr. Demaree says: "Mr. Dadant's evil report concerning his Cyprian bees does not sound well, after advertising and selling them." I would be glad to know what we had to do? As soon as we ascertained the bad temper of these bees we ceased advertising them, although having ¾ of them on hand yet. Would it have been more honest to continue to sell them, without saying a word about their irrascibility?

To sum up, I advise correspondents when writing articles for the Bee Journal to give facts, well observed facts, rather than assertions having no better foundation than a too active imagination.

The mixture of the Cyprian and Italian race *does not* produce cross bees, as Mr. Demaree intimates; on the contrary, all our hybrids of Cyprian and Italian are very gentle and beautiful, though not so beautiful as the *cross and pure* Cyprians. This is proved by the reports of all those who have them. I therefore think that the Cyprian will do to cross with the Italian, and let all remember, that we do not say this for our interest, for we have stopped advertising the Cyprian bees ever since June.

Hamilton, Ill., Sept. 16, 1881.

For the American Bee Journal.

The Test of the Prize Queens.

REV. E. L. BRIGGS.

The committee came together on the 20th inst., as appointed for their decision in reference to qualities of the contestant prize queens, which had been sent me as such. They first decided upon the numbering of the standard of excellence, placing the imaginary perfection of the coming bee at 100, for each of the points as to size, color, gentleness and prolificness in offspring—total, 400.

They unanimously gave their verdict in favor of a queen and her progeny, sent me by Dr. I. P. Wilson, of Burlington, Iowa, the sum of all her markings being 385, in 400. The second one was from Wm. P. Henderson, of Murfreesboro, Tenn., her markings being $363\frac{1}{3}$. The next was from Mr. Wm. Lossing, of Hokah, Minn., hers being $363\frac{1}{3}$. The others were pronounced splendid, but fell behind a little in some of their points. No one need fear in ordering queens from either of the five contestants, if their bees rate up with those sent to me.

So well satisfied am I with the result of the offer, that those who sent forward their queens may draw on me, if I am alive and well, for a young queen from either one of these prize queens, as they may choose in addition to her sale price, without cost. The sale price will be forwarded on my return home next week, or as soon as the several bills come to hand. The report, of course, will be forwarded so as to appear next week.

Wilton, Iowa, Sept. 22, 1881.

For the American Bee Journal.

Honey Sweating and Watery.

W. R. YOUNG.

The honey season is over, and only a moderate amount of surplus honey secured. White clover, which is our principal source, bloomed, but did not yield much nectar.

In June and July, 1879, I Italianized my apiary. In 1880, my pets gave me considerable surplus. I stored it in an upper room of my dwelling house, and was well pleased with Italians. Soon I discovered the honey was becoming unsalable; it would sweat, get watery, ooze, run and saturate the bottoms of the sections. While I had blacks, I kept the surplus in the same room, but never experienced any trouble. I wrote to a bee paper for the cause of it, and the reasons given were: The room is not warm enough and too damp, or the season was wet in your locality. Neither of which is correct. In Quinby's new Bee-Keeping, Mr. L. C. Root says, "Italians store the cells fuller, and cap them over directly against the honey, giving the surface a watery appearance, while the blacks leave a little unfilled space." This I am satisfied was the true reason, and I concluded a remedy must be found, or else I must return to blacks for salable surplus.

The present season I have the same serious trouble. I tried putting some back on the hives; the bees licked it off very nicely, and removed a considerable portion, and appeared much obliged for my kindness. Now I see you give Mrs. L. Harrison's remedy for the same trouble. She says, "wrap the boxes in newspapers and put them on top of the cupboard in the kitchen." If this is a remedy, it may do for a small quantity of honey. I would like to know if other honey producers have the same difficulty to contend with, and how they manage.

Myersville, Md., Sept. 5, 1881.

[Will any one give the remedy found to be the best in their experience?—Ed.]

◆

For the American Bee Journal.

Have Our Bees Degenerated?

E. A. THOMAS.

On page 178 of the Weekly Bee Journal, Mr. G. M. Doolittle says:

"On pages 145 and 147 of the Weekly Bee Journal, are articles by E. A. Thomas, and S. S. Butler, both saying that all the losses of bees in winter, prove that the losers have a weak race of bees, or those which have degenerated from their once hardy and prosperous condition."

Now if Mr. Doolittle will read my article on page 145 carefully, I think he will fail to find anything in it that will convey the above meaning. I have not attributed all the losses of the past winter to the weakness of the race, or to any other one cause, for I think there are a great many causes; but I do assert that some of the losses can be accounted for in this way. When I read reports of bee-keepers who have lost ½ of ⅔ of their bees, I always think the rest are of but little value for that season, and why? Because in a majority of cases, the rest are too weak to build up strong enough for the honey harvest, mere handfuls of bees that can hardly live through the spring. I do not wish to be rough or to discourage any one, but facts are facts, and I have gleaned enough from my correspondence to give me good ground for my assertions.

Mr. Doolittle says: "When the spring of 1875 opened, I found I had but 46 colonies left out of over 100 the fall previous, and from those 46 colonies I sold over 4,800 lbs. of box honey."

That is good; but supposing Mr. D. had wintered his 100 colonies in excellent condition, what then? Why, he might perhaps have obtained the enormous yield of 12,000 pounds. Probably Mr. D. spent a great deal time and money to get his 46 colonies in condition for the honey harvest. But he must remember that all bee-keepers have not the time and skill to do this, and to such, weak puny colonies in the spring are of but little value.

If Mr. Doolittle thinks there is no difference in bees, and that one strain is as hardy as another, then why does he take any pains in rearing his queens, or why does he consider queens reared from swarming cells superior to all others? Why should there not be as much difference in bees as in other animals?

I recall to mind the case of an apiarist who several years ago lost all his bees, and, wishing to secure a hardy strain, re-stocked his apiary with bees from 3 different sources, and kept a record of each strain. I will designate the three strains by numbers, 1, 2 and 3. They all had the same treatment, and were prepared for winter in the same way. They were wintered outdoors, and well protected. They came through in spring with the following result: No. 1. All came through strong, with the exception of 2, one having the dysentery, and the other being queenless. No. 2. All came through very strong and vigorous, with the exception of 4, one being dead, and the other 3 being weak. No. 3 sustained a loss of 89 per cent., and the remainder were all very weak. Now why did number 1 and 2 winter in good condition while No. 3 nearly all died? The only way that I can account for it is that No. 3 was a weak, puny race. Since then he has taken a great deal of pains with his colonies, and during the past severe winter sustained a loss of only 5 per cent. I have queens from strains No. 1 and 2 in my apiary now which look very tough and healthy.

I know of another bee-keeper who had practiced in-and-in-breeding until his bees had nearly run out, half of them dying every winter, and the rest coming through in spring so weak that they could not be built up strong enough for the honey harvest. Two years ago he re-queened his apiary from the stock of a man who had taken pains to breed a hardy strain of bees, and since then his bees have wintered well, being very strong when the honey flow came, and so giving him 4 times as large honey crops. Now, as the bees were wintered in the same way, why is it that his present strain came through the past severe winter in good condition, while his former strain could hardly stand a mild one?

I do not believe that the losses of Messrs. Doolittle, Hetherington, Palmer and others, can be attributed to this cause, for they are all skillful and careful apiarists, who would not let their bees degenerate. But I do think that there are many careless bee-keepers, and I am afraid now and then a queen-breeder who takes no pains to keep up the stock of the country. The importation of cheap, poor stock, may tend to degenerate our bees, and I hope this evil will correct itself in time, and only the best importations be tolerated into America.

I will not say that the results of the past winter indicate that our bees have degenerated, but that they are not what they should be, or what they might be. The losses of the past should incite apiarists to fresh exertion, and no one should sit down contented until the goal is won, and the American strains of Italians have a world-wide reputation. If we will all do our part to attain this end, I venture to prophesy that the time will come when America will be exporting bees in large quanties instead of importing.

Coleraine, Mass.

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For the American Bee Journal.

Review of the Season.

GREINER BROTHERS.

When spring opened and the earlier fruit-tree blossoms made their appearance, we found ourselves in possession of 85 colonies of bees. We sold at that time 15, leaving 70 out of 160 strong colonies last fall, which we undertook to winter. With the exception of a very few fair ones, about ¾ of those were very weak, and the balance not much better, so that the prospect of a honey crop was decidedly against us.

A writer of the Bee Journal made the remark that weak colonies that just made out to live, might as well have died. This was not very soothing for our already discouraged state of mind, and if we had not been blessed with a good portion of hope, together with these encouraging words of the editor: "But with the bee-keeper all is not lost, though he lost all," we should have undeubtedly have given up in despair. We intended to strengthen our weak colonies by doubling up, but could get no chance to do so in March and April, on account of the steady cold weather; and, as the season advanced and we wished to save all the queens we could, we decided to leave our colonies separate, and nurse them up as best we could.

Time wore on; apple trees sent forth their blossoms, but yielded little honey, and our bees did not make as much headway as we had hoped. The predictions were all in favor of an abundance of white clover for this season, and we wished to get our bees in good condition as soon as possible; we therefore concluded to try feeding. We had about 70 beeless hives filled with thick and partly granulated honey, so that the extractor failed to do thorough work. This we fed; we kept from 2 to 4 hives setting exposed in our bee yard for our bees to work on all the time, and to make it accessible, we removed one comb from each hive, spread the remainder, and uncapped all the honey. In this way we accomplished several objects: we fed our bees; we prevented the worms from having all their own way; we made use of the honey, and we got our combs in the best shape for trimming and patching wherever it was necessary.

It is needless to say that our bees availed themselves of the opportunity to their hearts' content; by the time basswood honey commenced they refused to work at our hives any longer, but nearly all of them were cleaned out. At the same time we kept close watch of our colonies; we made it a point to keep an empty comb in the centre of each broodnest, so that every queen had ample opportunity to exert herself, according to her capability. The result was astonishing; about the 20th of June, our colonies had as fair a display of brood as could be desired, though not quite as much so as Mr. Doolittle says: "Even to the bordering cells;" but what little space was left without brood was filled with capped honey, and this, we think, is just as effectual in regard to bees working in boxes, as all brood. We would say here, that we never succeeded yet in getting combs entirely full of brood, hard as we have tried.

White clover appeared early and plenty this season, and we imagined the tons of clover honey harvested, as the fulfillment of the various prophecies of the coming honey season. But alas! another disappointment came; wet and cold weather prevented bees from gathering clover honey to any amount; what little they did gather, together with our feeding, kept them breeding nicely; even preparations for swarming were being made, but yet no surplus honey. About this time, June 22 to 24, some of our young queens were getting ready for use, and we began to divide; we also had some natural swarms, which were hived on full sets of comb, and in proper time all queenless colonies were supplied with young, laying queens. Thus, June passed and July came, and with it a change in the weather; our bees worked less on the honey we offered them, but went more and more in search of nature's sweetest nectar, until all at once, about July 8 or 10. they left our hives entirely, and the honey season commenced.

The way our bees worked for about 2 weeks was almost incredible—far beyond anything we ever experienced; but the strangest feature of the season was, that they did not stop work from the close of the basswood bloom, until buckwheat began. We always had a lack of honey between basswood and buckwheat of about 2 weeks, until this season, and the only explanation we can give, is that the less important honey plants, such as Canada thistle, catnip, etc., yielded more honey than ever before. To be sure, they did not work as rapidly as they did in the height of basswood, but they built comb and capped it at a perceptible rate.

Buckwheat began very promisingly; bees worked well for about 8 or 10 days, but the drouth cut off the latter part of the buckwheat yield, so that we harvested only ½ a crop of buckwheat honey. Still we can report a whole crop of honey, and if we take into consideration that white clover yielded no honey, and buckwheat only ½ a crop, the season has been certainly a remarkable one for productiveness in so short a time.

In conclusion, we would invite the more experienced bee-keepers who have practiced uniting in the spring, to give an explanation on the question: Is it an advantage to unite weak colonies in the spring, and why is it so? Whilst we are trying to investigate the matter in our own minds, the question presents itself in a mathematical way. Supposing we had reduced our bees to one-half of their number of colonies by doubling up, would they then have been twice as strong, and capable of producing twice the number of pounds per colony, which would have been necessary to produce the same amount of honey they did under the present circumstances? Would it be reasonable to suppose that our average yield of 130 pounds, and the yield of our best colonies of nearly 400 lbs. of comb honey, could have been doubled in the supposed case?

These questions are worth discussing, and we would be pleased to hear from others on the subject.

Naples, N. Y., Sept. 19, 1881.

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For the American Bee Journal.

Bee-Farming and Pasturage.

J. H. MARTIN.

I was much interested in the editorial in the Bee Journal in relation to planting especially for honey.

I own a farm of 100 acres, and it has heretofore been cultivated for general farm produce. As bee-keeping has become more and more my occupation, I have seriously considered the project of making it a bee-farm. A farm, or a tract of land could be filled up for the exclusive pasturage of bees. A portion could be planted to forest trees, and another portion could be preserved for the sowing of honey producing plants. A rotation of these plants would be necessary, for, a certain plant for a number of years upon the same field would soon exhaust it from producing seeds or honey. Neglect to plow the land frequently, would give a chance for all manner of foreign and useless brush and weeds to spring up.

Now, the plan I am pursuing with my farm in order to keep its fertility up to the highest point, is to run in connection with my bees a dairy, of as many cows as the land will admit of. It would be less work for the bee-keeper to pasture with sheep, but aside from the sheep being of less profit at present prices of wool, cheese and butter, I find that the more sheep pastured, the less white clover we have for our bees.

We well remember that during the war when the price of wool went up to $1 a pound, every farmer, both great and small, had his flock of sheep, and sheep being such close feeders, white clover was quite killed on all pasture lands. But now the dairy interest is in the ascendant, and our pastures are again carpeted with white clover. I guarantee you will find but little white clover where sheep have been pastured for a term of years. We have therefore decided upon corn, for our stock to keep up the fertility of the soil.

It is needless to recommend to the bee-keeper who gets the best blood in his hives, to also keep good blood in his barn. Blood pays in all cases, and if our farm will flow with "milk and honey," we must adopt the best breeds and best appliances. The prime object in making a bee-farm, is to provide pasturage at a time when the bees do not get honey from what is termed, "natural sources." The first thing our bees want in the spring is pollen, and we can imagine with what admiration, the first pollen-ladened bee is greeted as it enters the hive.

In my locality, what is commonly known as "pussy willow," gives an abundance of pollen and a little honey as early as the bees are able to fly. This willow thrives upon marshy land, and if it did not grow abundantly in a swamp near by, I would set out a hundred bushes. Soft maple also gives early honey, but I doubt if the quality is sufficient to pay for setting out these trees, except now and then one for the sake of having a variety. Hard maple blossoms later, but I would make it of use by tapping, and allowing the bees to take it from the tree, when the weather will admit of the bees flying; but my bees are quiet in the cellar during the maple sugar harvest. The sugar can be fed to them to advantage. Every bee-farm should have at least a hundred sugar maples.

The next blossom that comes to the consideration of the bee-farmer is fruit. It is needless to say that every owner of an acre of land will not forego the pleasures derived from an orchard. In a farming district where trees have reached an age of 60 years, with a growth in proportion to their age, who can estimate the number of blossoms upon the tree, that looks like a mammoth snowball. The apiarist here not only gets the benefit of his own planting, but from the planting by his neighbor, and I find that of all fruit blossoms, the cherry tree is most visited by the bees. Persons having land near a good market, would do well to put out several acres to cherries. I hear but little about great yields from fruit trees; the reason, I think, is from the fact that few colonies of bees are in that "boiling over" condition to obtain the fruit bloom honey. I find that those colonies which are in that right condition, will invariably store a good yield from this source.

For early honey. I also think the black locust cannot be excelled. Upon my hundred acres, I propose to set out 2 acres of locust, not only for the honey, but for the valuable timber. In 4 years, locust will not only blossom, but will be large enough for stakes, and thereafter will rapidly become profitable both for honey and timber. Raspberries are not to be despised as a honey producer, and if my hundred acres were located near a good market for the fruit, I would plant an acre or more of raspberries. There are many acres of wild raspberries around me upon waste pastures and in fence corners, but the tidy farmer will soon clear them from these places, and dependence will have to be put upon cultivation. Whenever I seed a field that has been under cultivation, I am ever mindful of the clover, for upon this many times depends my success as a bee culturist. White clover seems to spring up spontaneously upon all grass lands, and is the most permanent clover and honey producer I have, while red clover and alsike have to be sown every time when we put a field to grass. As I now sow alsike, I have adopted a plan by which I hope, by little expense, to add a hundred fold to my acreage. Every neighboring farmer is requested to give alsike clover a trial. I sell it at the same price per acre that it costs to seed with red clover, owing to the difference in the price of seed. I am out of pocket a little on every acre my neighbors sow, but every cent thus expended will come back in countless golden drops of nectar next year. Alsike would find more favor with farmers if the cost for seeding an acre was abont the same as for red clover. Sweet clover is looked upon with suspicion by the tidy farmers, and it would be against his progressive ideas to tolerate a plant that is of no apparent use; but as it is not a bad weed, and seems to thrive upon the hard roadside, I am extending my sweet clover pasturage along every highway for miles around me. In addition to this, an acre will soon be sown to it upon my farm, followed by more if this first acre pays.

I find for late fall pasturage, it is better to mow sweet clover in August. A new growth comes up very profuse with blossoms. If it will give my bees business after basswood fails, I will sow 10 acres of it. I hope the cultivation of it will prove it useful for other than honey purposes. Could I make it useful like buckwheat, I could extend my pasturage the same as I did my clover on the farms of my neighbors. Mignonette, figwort, catnip, motherwort and other plants of this class I am giving a trial, and will give land to the cultivation of each as they prove their qualities. Buckwheat is another of those crops that gives a good return to the bee-keeper, and at least 10 acres should be sown to receive much benefit. While, if your neighbors cultivate it, and extend your pasturage to hundreds of acres, a great number of colonies will find employment for several weeks.

The bee-farmer should not forget to plant a liberal number of basswood trees; next to white clover comes this tree in importance to the apiarist, and there is not a farm in the Eastern States that cannot well afford space for this noble tree. If planted upon the highway, I would plant with it the sugar maple. For a length of over 100 rods, my highway is planted with an avenue of over 100 trees. Some of these trees have been planted 8 years, and now blossom. The apiarist will find, not only pleasure, but profit, in becoming to a certain extent a forest tree culturist. There are many corners upon our farms that had far better be planted to useful trees, than to be infested as they are with weeds and brush. Our springs and small streams should be protected with a surrounding cordon of trees; they would then defy the scorching drouths of summer, and continue to fill our rivers for the continued benefit of commerce and manufactories. The apiarist should use his influence with his neighbors in this direction, for the day will surely come when our forests will receive the attention that has already been too long neglected.

I have thus outlined something of my plan for a bee-farm. If there is any person who has cultivated a farm of 100 acres or more exclusively for bees, it is his duty to give me the results of his experience.

In studying the matters of bee-farming, there are many points that come to me that I have not touched upon in the foregoing, but will give them to the readers of the BEE JOURNAL at some future time.

Hartford, N. Y.

CONVENTION
NOTES

For the American Bee Journal.

Toronto Bee and Honey Show.

WM. F. CLARKE.

Under the stimulus of the liberal prize list offered at this exhibition, and which was recently published in the AMERICAN BEE JOURNAL, there was a truly magnificent array of honey and apiarian supplies brought together. The directors appropriated an entire building to the use of bee-keepers, and for the first time at a great exhibition on the American continent, "honey hall" advertised itself side by side with horticultural hall, dairy hall, etc. Beside the building just mentioned, there was a large tent close by, where hives, extractors, live bees, and various out-door appurtenances of bee-keeping were shown; also where an endless flow of bee-talk was indulged. Inside of dairy hall, honey was displayed in every form, calculated to make the mouths of spectators water. The tin packages and cans were gorgeously colored and labeled; the glass jars were in various beautiful shapes, and even the wooden boxes displayed a wonderful diversity of taste. Of course, Mr. D. A. Jones was the leading exhibitor. He occupied nearly half tbe building. In the centre, he had a miniature church, ingeniously built of honey comb and wax, with pinnacles and spire. Dr. Nugent, of Strathroy, was not far behind Mr. Jones, and considering that this is his first season at the business, it must be admitted that he has stepped into the arena of competition with a wonderfully complete equipment. I think in the variety and beauty of his packages, he rather took the lead. W. C. Wells, of Phillipston, and M. Ramer, of Cedar Grove, Markham, were also prominent exhibitors. Besides these, there were a number of others who made most creditable exhibits on a small scale. The following is the prize list:

Largest and best display of honey, Edmund Nugent, Strathroy, $10; 2nd, D. A. Jones, Beeton, $5. Best 10 lbs. of extracted honey, D. A. Jones, $5; 2nd, W. C. Wells, Phillipston, $3; 3rd, M. Ramer, Cedar Grove, $2. Best 10 lbs. of comb honey, M. Ramer, $5; 2nd, Edmund Nugent, $3; 3rd, W. C. Wells, $2. Best mode of marketing extracted honey, D. A. Jones, $5; 2nd, Edmund Nugent, $3; 3rd, W. C. Wells, $2. Best mode of marketing comb honey, Edmund Nugent, $5; 2nd, W. C. Wells, $3; 3rd, M. Ramer, $2. Best comb foundation for brood chamber, D. A. Jones, diploma. Best comb foundation for honey boxes, W. C. Weils, diploma. Best and most scientific mode of wintering out-door in any kind of hive, D. A. Jones, $5; 2nd, Edmund Nugent, $2. Best house for wintering bees and of the most use for apiarian purposes in summer, working model to be on ground, represented by a scale of not less than one inch to the foot, D. A. Jones, $5. Best winter and summer hive, D. A. Jones, diploma. Best and most practical invention for retaining even temperature in bee-houses, D. A. Jones, $3. Best wax extractor, D. A. Jones, diploma. Best mode of securing the largest yield of box honey from a single hive, M. Ramer, $3; 2nd, Edmund Nugent, $2. Best mode of securing the largest yield of extracted honey from a single hive, D. A. Jones, $3; 2nd, Edmund Nugent, $2. Best and most valuable invention in bee hives not heretofore exhibited or made public, D. A. Jones, bronze medal. Best non-swarming hive, D. A. Jones diploma. Best bee smoker, D. A. Jones, $2; 2nd, T. P. Hodgson, Horning's Mills, $1. Best honey knife, D. A. Jones, $2. Best honey extractor for general use, D. A. Jones, $2; 2nd, Edmund Nugent, $1. Best exhibit of bees and new races of bees, D. A. Jones, diploma. Best and largest display of apiarian supplies, D. A. Jones, $10; 2nd, Edmund Nugent, $5. Best and most practical new invention for the apiarist, D. A. Jones, $5. Best form of hive, D. A. Jones, bronze medal. Extras—W. C. Wells, comb foundation masher, commended.

It will be seen by the above, that Mr. Ramer took the first prize for comb honey, and I do not hesitate to say, that the whole world never saw so handsome a lot. It was the astonishment of every bee-keeper on the grounds for purity, evenness and accuracy of form, the corners even being finished out as though the work had been done with a square and planer. The secret of it lies in the use of perforated zinc in the place of the usual tin separators. It seems that bees do the best work standing on their heads. I have asked Mr. Ramer to send a sample of his honey and perforated separators to the forthcoming Convention at Lexington, and I hope he will do so.

A smashing trade in honey was done at the exhibition. Thousands pf people might be seen with gay-looking tin cans dangling from their fingers, or with pretty glass jars in their hands, or nice boxes under their arms. They bought and carried them home very much as is usually done with toys and trinkets on such occasions. The success of this show awakens great expectations as to the future of bee-keeping in this country, and these few notes of it may suggest a wrinkle or two that will be serviceable to apiarists in other parts of the world.

Toronto, Can.

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☞ The Eastern Michigan bee-keepers' Association will hold its fall meeting in Detroit, Oct. 4, in the Y. M. C. A. hall, at 10 o'clock a. m.

A. B. WEED, *Sec.*

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. MILLER, M. D., *Pres.*
C. C. COFFINBERRY, *Sec.*

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☞ The Western Michigan Bee-Keepers' Association will meet in Berlin, Ottawa, Co., Mich., Thursday, Oct. 27, 1881, in Huntley's Hall, at 10:30 a. m. All interested, are cordially invited.

WM. M. S. DODGE, *Sec.*
Coopersville, Mich., Aug. 29, 1881.

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☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. GOODNO. *Sec.*

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☞ The South Eastern Mich. Bee-Keepers' Association, will hold its 4th meeting at the Court House, in Ann Arbor, Wednesday, Oct. 5, 1881, at 9 o'clock a. m.; the week of the County Fair. An adjourned meeting may be held during the week. All interested are invited to attend. By order of the Executive Committee.

N. A. PRUDDEN, *Chairman.*

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☞ The North Eastern Wis. Bee-Keepers' Association, will hold its fall meeting at Peewaukee, Wis., on Tuesday and Wednesday, Oct. 11 and 12. A full attendance is cordially requested. Notice of the plauce of meeting will be found at the local Post Office.

GEO. CHURCH, *Pres.*, Neenah, Wis.
FRANCES DUNHAM, *Sec.*, Depere, Wis.

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South Western Iowa Bee Association.—The regular annual meeting of this association, will occur at the apiary of James T. Fife, in Jasper township, near Corning, Iowa, on Thursday afternoon, Sept. 29. The place of meeting is such that the topics considered will be practically demonstrated. Following is the programme: Business of Society; raising of queens; introduction of queens; dividing of bees; practical handling of bees. A full attendance is desired.

J. T. FIFE, *Pres.*
W. J. OLIVER, *Sec.*

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☞ Owing to the fact that the time of the regular meeting of the Union Bee Association, at Shelbyville, Ky., conflicts with the time fixed by the executive committee, to hold the National at Lexington, the meeting of the Union, at Shelbyville, has been postponed till the 20th of October.

G. W. DEMAREE. *Sec.*
Christiansburg, Ky., Sept. 3, 1881.

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☞ The Rock River Valley Bee-Keepers' Convention, will be held at Monroe Center, on the third Tuesday in October. We hope a good attendance will be the outcome, and the bee interest revived.

D. A. CIPPERLY, *Sec.*

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☞ The Michigan State Bee-Keepers' Association, will convene at Battle Creek, on Thursday, Dec. 8, 1881. We have reason to expect one of the largest and most interesting meetings we have ever held. Let all arrange to be present. All District Associations should send delegates. Each person should come with their best experience in their hands, ready to hand it over to the others of the fraternity. It is hoped that all will bring the fullest report possible from their region. Commutation rates are expected on railroads. A. J. COOK, *Pres.*
T. F. BINGHAM, *Sec.*

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☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.
N. E. FRANCE, *Sec.*, Platteville, Wis.

SELECTIONS FROM OUR LETTER BOX

Removing Bees from Combs.—I have found that a fine, light-brush broom is superior to anything else for removing bees from combs. It does not aggravate them, as does a wing of any kind. It is easily washed when besmeared with honey, and will last many years. To use the broom, do not sweep the bees off with the end of the brush, but use the side and corner with a quiet, short stroke. This has been a season of disappointments, for bad and good results with me for the bees. The basswood and clover (on account of too much rain), were almost a failure. Other long rain spells have cut off the storing of large quantities of honey, being daily brought in. Yet I think that I shall be able to report a surplus of 75 lbs. to the hive, of comb honey. I have already taken 90 pounds from some hives. I am keeping this season, in 2 apiaries, 175 colonies of bees. JOHN BIRD.

Bradford, Iowa, Sept. 17, 1881.

Another Way of Swindling.—Some of my neighbors have paid a professional bee-man, who has been giving lessons for about $150.00 through this locality, insuring that amount to be made out of the business in a stipulated time. Of course the purchaser had to give his note with interest. When the notes became due, they were found in the nearest bank for collection, and our professional bee-man, W. H. McLaine, is among the missing. We have had the most extensive drouth this county ever witnessed. Bees have done well early in the season, but since July 15, they have been consuming their stores, consequently there will be no surplus, in this part. The weather is still very hot, and the ground is parched and has cracked open. In my opinion, bees in this locality will have to be fed. How much honey does a colony of bees require to winter on? And what is the best way of feeding? Should bees be put into winter quarters while the weather is so hot? S. I. D.

Goldsmith, Ind., Sept. 8, 1881.

[If in the cellar, 20 to 25 pounds will answer; more will be required for outdoor wintering. Bees should not be housed or cellared until the weather has become too cool for quite frequent flights.—ED.]

Three Years' Experience.—I have had bees for 3 years; the first year I had 20 colonies, and sold $23 worth of honey. The 2nd year I had 17 colonies, and sold $125 worth of honey. Now I have 73 colonies, and this fall it has been so dry that I have sold but $70 worth. My bees are at the foot of a bluff on the Mississippi bottom lands, and are Italians. The BEE JOURNAL has been a great help to me. JAMES CORBIT.

Palmyra, Mo., Sept. 19, 1881.

Is it Foul Brood?—Please let me know, through the BEE JOURNAL, if one of my colonies has what is termed foul brood? It is one that has put out two heavy swarms this season—one natural and one divided. The mother colony has dead brood in the combs in all stages of growth, and some hatching out, but they have no honey. I do not think I will put them away for winter. This has been a poorer season with us than the last was. I will get some comb honey yet, perhaps 75 lbs. from 6 colonies, but no extracted. THOMAS PARKE.

State Centre, Iowa, Sept. 22, 1881.

[The brood was starved or chilled, caused by being robbed too closely of field workers. If there is much dead brood in the hive it may cause disease.—ED.]

Changing Blankets.—Would it be better to take off the old waxed cloths when packing in chaff in the fall, and put on new ones? Please answer through the BEE JOURNAL. R. SPILLETT.

Robinson, Ont., Sept. 18, 1881.

[Yes, if absorbents are used above, as the propolis would make absorption as well as upward ventilation next to impossible.—ED.]

Vindication of H. A. Burch & Co.—Through the AMERICAN BEE JOURNAL and *Gleanings in Bee Culture* I see that H. A. Burch & Co. have been placed in an embarrassing position, and to make it (as it seems to me) more embarrassing to Mr. Burch, our worthy bee papers are spreading the news, pushing, as it were, the man over the precipice. They have, seemingly, forgotten the old adage, "Never push a man when he is going down the hill." In past years, I believe, not a word of reproach nor a hint of crookedness has been brought against H. A. Burch. We have been told in *Gleanings* that Mr. Burch lost nearly all his bees (no crookedness in this) during the past winter. Now, it is no more than fair to presume that Mr. Burch's locality is not unlike our own and lots of others that we have heard of during the past summer, where, through ignorance or superstition, the bees that were left could not be bought nor had for love or money. Now, perhaps Mr. Burch (unwisely though) depended upon re-stocking his apiary with the bees owned by farmers in his vicinity and in this failed, and having a great many orders to fill with bees and queens, we can see very easily where it would place Mr. Burch. We know that Mr. Burch is behind with his orders, but we also know that he is filling his orders. I sent to him for a queen on the last of July, 1881, and received her on the first of September. I have waited longer on other queen-breeders. Let us be sure that Burch is a humbug before we say he is; if he is, let the people know it. If he is not, then let us help him up again. Charity for all. J. A. BUCKLEW.

Clarks, O., Sept. 17, 1881.

[We are exceedingly pleased to record the above instance of promptness on the part of Mr. Burch in filling *one* order. Perhaps Mr. Bucklew is right in suggesting *charity*, for, after receiving scores of letters within the last two years complaining of Mr. Burch's irregularities, our charity for him was nearly absorbed in the desire to do *justice* to our readers.—ED.]

Beetles for Name.—Inclosed find 4 bugs that seem to feast on the peaches. Please give its name, habits and nature. It punctures the apples in the orchard as well as the peaches, and many orchardists have laid the damages of this bug to the honey bee. JOSEPH M. WISMER.

Jordan Station, Ontario.

[These beetles (not bugs) are the Euryomia inda, Linn.: Cetonia inda, Harr. Except the habit of feasting on our nicest peaches and such luscious apples as the fall pippin, they do little harm. Their flight is heavy, and when on the wing they might easily be mistaken for bumble bees.—A. J. COOK.]

Grape Juice for Bees.—My bees are almost starving; there is nothing for them to gather. I have been feeding sugar for some time. I mashed some grapes to feed my bees, and they liked them; will they injure the bees? Please answer in the BEE JOURNAL. SAMUEL M. LILLEY.

Montgomery Sta., Pa., Sept. 20, 1881.

[Grape juice will probably do no harm so long as bees are constantly flying, but they cannot winter on it. ED.]

Good Honey Crop.—My bees did well this season. I have now about 3,000 lbs. of as nice honey for the market as can be purchased, in cans, boxes, sections, etc. I think prices are looking up, and as I am not in need, I propose leaving my honey in the cellar for some time yet. I wish the BEE JOURNAL much success. J. ANDERSON.

Tiverton, Ont., Sept. 16, 1881.

The Drouth Ended.—The great drouth of 1881, has, at the advanced age of 110 days, found a "watery grave." There are no mourners, though the deceased was much respected here. W. H. ANDREWS.

McKinney, Tex., Sept. 13, 1801.

Milkweed.—I inclose a specimen of plant the name of which I would like to know. It blossoms for about 75 days, and has a small red flower. The bees seem to prefer it to almost anything else, and work on it continually. H. VARNER.

Jordan, Minn., Sept. 12, 1881.

[This milkweed is one of the most common species of Asclepias. All the milkweeds are good honey-producers. True, the pollen masses sometimes entrap bees, and more frequently still worry them by adhering to their mouth parts and legs; yet, from the abundant nectar which they yield, I think them desirable as forage plants for bees.—A. J. COOK.]

A Ton of Honey from 55 Colonies.—I had 55 colonies left last spring, out of 147 last fall. They increased this summer by natural swarming to 95, and produced about 1200 lbs. of comb honey in sections, and about 800 lbs. of extracted, mostly basswood. Fall honey is very promising, but the continual heavy rains for the past 3 weeks, has stopped their work entirely. The whole country is in a perfect mire now. C. THEILMANN.

Theilmanton, Minn., Sept. 17, 1881.

The Michigan Bee Men.—This week's BEE JOURNAL contains notices of 18 conventions, of which Michigan has 6, or one-third of the entire number, and 3 more than any other state in the Union. I will admit that Illinois has the best bee paper, but she cannot come up to glorious old Michigan for go-ahead bee-keepers. GEO. PERRY.

Lansing, Mich., Sept. 17, 1881.

Extract from the Sections.—Bees have done excellently well here this season. I cannot make my report yet, for the bees are still booming. I will have to report later in the season. When the bees quit work for the season, leaving boxes and sections partly filled with honey, some being nearly ready to cap, what had I better do with such sections and boxes? Will it pay to squeeze the honey out and melt the comb into wax? J. R. BAKER.

Keithsburg, Ill., Sept. 21, 1881.

[Extract the honey from the incomplete sections and boxes, and carefully save the combs for another season. They will be a great assistance in securing a good yield.—ED.]

Good Increase. I bought 5 colonies of bees which I have increased to 23. I had one colony of Italians that made 8 good colonies by dividing, and had 1 natural swarm, which I united with another. I obtained no surplus honey, and am feeding 3 to give them stores for winter. My bees have reared no queens nor built combs; I bought them. I had the poorest success introducing queens that I ever had. I bought two queens in September and lost both, leaving one colony hopelessly queenless, which I united with another; the other is rearing a queen, but I have a doubt whether she will get mated, as drones are getting scarce. I am sorry so many queen-breeders are rearing such a variety of queens. When I buy a queen I like to know what stock she is from. When the BEE JOURNAL comes to hand on Wednesday mornings, I know I have something reliable. ABE HOKE.

Union City, Ind., Sept. 14, 1881.

Light Crop.—Bees doing well as far as I can see. There has been a rather light yield of honey this year, so far. I hope for better next year. J. ELDER.

Huntingdon, Ind., Sept. 23, 1881.

A Remarkable Queen.—On the 4th ult., I received from friend J. M. C. Taylor, of Lewistown, Md., 2 queens, one, of which, is an Albino. Both were splendid specimens of the Italian race. One of these I lost, but the Albino excels in beauty, and is transcendently the most prolific queen that I have known, in all my experience, which extends through 40 years. Her progeny are rare beauties, and extraordinary active workers. I handled Italian Bees from the first importations, and these Albino bees are as amiable as any that I have known. C. J. ROBINSON.

Richford, N. Z., Aug. 26, 1881.

Appoint Delegates.—The following circular has been sent to all the Michigan District Associations:

Lansing, Mich., Sept. 20, 1881.

Dear Sir: As your Association is soon to meet, please bear in mind that the State Association will meet at Battle Creek, Mich., Thursday, Dec. 8th, 1881, and see that delegates are appointed thereto—the more the better. We may well feel proud of the fact that we now have more District Associations in our State than does any other State in the country, and if each one sends a strong delegation to the State meeting, it will insure a success eclipsing that of any previous meeting. That our State Society is a power, is seen in the two laws secured at the last session of the legislature—foul brood and adulteration—which were secured through its influence. Let us all work earnestly to maintain all we have, and to achieve indefinitely more. Wishing you abundant success in your deliberations, we are very truly yours, A. J. COOK, *Pres.*

T. F. BINGHAM, Abronia, Mich.,
Sec. Mich. S. B. K. A.

* * *

Kentucky Bee-Keepers' Association.—The second annual convention of the Kentucky State Bee-Keepers' Association, will be held in the Exposition Building, in Louisville, Ky., on Wednesday and Thursday, Oct. 12 and 13, 1881.

A fine display of bee-keepers' supplies, honey, etc., is expected, and some of the most prominent bee-keepers in America, who will be in attendance at the National Bee-Keepers' Convention, at Lexington, Oct. 5, 6, and 7, are expected to attend. All are invited. N. P. ALLEN, *Pres.*

* * *

☞ We have received from Ellwanger & Barry, proprietors of the "Mount Hope Nurseries," Rochester, N. Y., their descriptive catalogues of "fruits," and "select roses." These are elegantaly illustrated pamphlets, and are sent *free* upon application.

* * *

The St. Joseph, Mo., *Gazette* says:—THE GAZETTE proposes to keep pace with every movement that tends to the development of any great industry. It has had the pleasure of placing on its exchange list the the *American Bee Journal*, which is to say, that henceforth the apiarist, as well as every body else, will find honey to his own liking in the great daily of the Northwest—but never "taffy."

* * *

Badges.—Bee-keepers going to fairs should wear a badge with a gold bee on it. It will serve to introduce him to other bee men. We will send them for 10 cents, post paid.

Special Notices.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

◆

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆

☞ Articles for publication must be written on a separate piece of paper from items of business.

◆

Photographs of prominent Apiarists—Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

◆

☞ When changing a postoffice address, mention the *old* as well as the new address.

◆

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

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Faded or Gray Hair gradually recovers its youthful color and lustre by the use of Parker's Hair Balsam, an elegant dressing, admired for its purity and rich perfume. 36w4t

◆

There is More Strength restoring power in a 50 cent bottle of Parker's Ginger Tonic than in a bushel of malt or a gallon of milk. As an appetizer, blood purifier and kidney corrector, there is nothing like it, and invalids find it a wonderful invigorant for mind and body. See other column. 36w4t

◆

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

◆

Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. It will pay to devote a few hours to the BEE JOURNAL.

◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums:

For a Club of	**2**,	—a copy of "Bees and Honey."
" "	**3**,	—an Emerson Binder for 1882.
" "	**4**,	—Cook's (Bee) Manual, paper.
" "	**5**,	— " " cloth.
" "	**6**,	—Weekly Bee Journal for 1 year.

◆

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL,
Monday, 10 a. m., Sept. 26, 1881.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. I have just purchased a car load of extracted at current prices

We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@22c.

AL. H. NEWMAN, 972 W. Madison St.

CLEVELAND.

HONEY—There is a slight improvement in our market for comb honey. One pound unglassed sections find ready sale at 21c. for white, and 19@20c. for 2 lb. sections. Extracted honey continues slow at 10@12c.

BEESWAX—20@22c.

A. C. KENDEL, 115 Ontario Street.

NEW YORK.

HONEY—The market is well supplied at present, but there is a large prospective demand.

We quote as follows: White comb, in small boxes, 18@20c; dark, in small boxes, 15@17c. Extracted, white, 10@12c.; dark, 7@9c.

BEESWAX.—Prime quality, 22@24c.

THORN & CO., 11 and 13 Devoe avenue.

CINCINNATI.

HONEY—Is in good demand here now.

I quote: Good comb honey, in sections, is worth 14@16c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

BOSTON.

HONEY.—Our honey trade has now fairly commenced, and we are selling quite freely. We find that one-pound combs are a very desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 21@22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

SAN FRANCISCO.

HONEY.—Sales of choice comb, to arrive, have been effected at 20c. for small lots. It is doubtful if an order for a large lot of choice comb could be filled in this market. Choice extracted, in barrels, is quotable at 9@9½c

We quote white comb, 16@20c.; dark to go d, 10@14c. Extracted, choice to extra white, 9@10½c.; dark and candied, 8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.

ST. LOUIS.

HONEY.—Demand fair. New extracted, 7@9c.; comb, 14@16c.

BEESWAX—Prime yellow sells at 20@21c.

R. C. GREER & CO., 117 N. Main Street.

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX—Best light 23@25c.—*Philadelphia Merchants' Guide.*

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept. 29—Southwestern Iowa, near Corning, Iowa.
W. J. Oliver, Sec.
Oct. 4—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
5—Southeastern Mich., at Ann Arbor, Mich.
5-7—National, at Lexington, Ky.
Dr. E. Parmly, Sec., New York City.
12—Kentucky State, at Louisville, Ky.
11, 12—Northern Michigan, at Maple Rapids.
D. R. Goodno, Sec., Carson City, Mich.
11, 12—Northeastern Wis., at Pewaukee, Wis.
Frances Dunbam, Sec., DePere, Wis.
12—Central Ky., in Exp. B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
18—Rock River Valley, at Monroe Center, Ill.
D. A. Cipperly, Sec., Monroe, Ill.
20—Union Kentucky, at Shelbyville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
25, 26—Northwestern District, at Chicago, Ill.
C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.
Dec. 8—Michigan State, at Battle Creek, Mich.
T. F. Bingham, Sec., Abronia, Mich.
1882.
Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

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Quart, " 2½ " " ...	1.20....	7.00
Pint, " 1¼ " "	.75....	4.00

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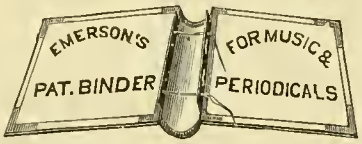

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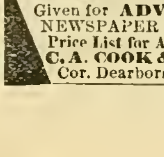

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:o:

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This is a new edition of Prof. Cook's Manual of the Apiary, enlarged and elegantly illustrated. The first edition of 3,000 copies was exhausted in about 18 months—a sale unprecedented in the annals of bee-culture. This new work has been produced with great care, patient study and persistent research. It comprises a full delineation of the anatomy and physiology of the honey bee, illustrated with many costly wood engravings—the products of the Honey Bee; the races of bees; full descriptions of honey-producing plants, trees, shrubs, etc., splendidly illustrated—and last, though not least, detailed instructions for the various manipulations necessary in the apiary.

This work is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. It is fully "up with the times" on every conceivable subject that can interest the apiarist. It is not only instructive, but intensely interesting and thoroughly practical.

:o:

Read the following opinions of the Book;

All agree that it is the work of a master and of real value.—*L'Apiculture*, Paris.

I think Cook's Manual is the best of our American works.—LEWIS T. COLBY.

It appears to have cut the ground from under future book-makers.—*British Bee Journal.*

Prof. Cook's valuable Manual has been my constant guide in my operations and successful management of the apiary.—J. P. WEST.

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Is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without.—*Nebraska Farmer.*

To all who wish to engage in bee culture, a manual is a necessity. Prof. Cook's Manual is an exhaustive work.—*Herald*, Monticello, Ill.

With Cook's Manual I am more than pleased. It is fully up with the times in every particular. The richest reward awaits its author.—A. E. WENZEL.

My success has been so great as to almost astonish myself, and much of it is due to the clear, disinterested information contained in Cook's Manual.—WM. VAN ANTWERP, M. D.

It is the latest book on the bee, and treats of both the bee and hives, with their implements. It is of value to all bee-raisers.—*Ky. Live Stock Record.*

It is a credit to the author as well the publisher. I have never yet met with a work, either French or foreign, which I like so much.—L'ABBE DU BOIS, editor of the *Bulletin D' Apiculteur*, France.

It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat*, Pulaski, N. Y.

We have perused with great pleasure this *vade mecum* of the bee-keeper. It is replete with the best information on everything belonging to apiculture. To all taking an interest in this subject, we say, obtain this valuable work, read it carefully and practice as advised.—*Agriculturist*, Quebec.

This book is pronounced by the press and leading bee-men to be the most complete and practical treatise on bee-culture in Europe or America; a scientific work on modern bee management that every experienced bee-man will welcome, and it is essential to every amateur in bee-culture. It is handsomely printed, neatly bound, and is a credit to the West.—*Western Agriculturist.*

This work is undoubtedly the most complete manual for the instruction of bee-keepers which has ever been published. It gives a full explanation regarding the care and management of the apiary. There is no subject relating to the culture of bees left untouched, and in the compilation of the work Prof. Cook has had the advantage of all the previous knowlede of apiarists, which he uses admirably to promote and make popular this most interesting of all occupations.—*American Inventor*

It may safely be pronounced the most complete and comprehensive of the several manuals which have recently appeared on the subject of bees and their handling in apiaries. The studies of the structure of the bee, the different varieties, the various bee products, and following these the points of management, extending to the smallest details, are all of high and practical value. Prof. Cook has presented the latest phases of progressive bee-keeping, and writes of the themes discussed in the light of his own experience.—*Pacific Rural.*

Of the many excellent works which we have examined on bee-culture, we consider Prof. Cook's the most valuable for the study of those who contemplate going into the business or are already keeping bees. If thoroughly studied, and its teachings conformed to, by the apiarist, who exercises a reasonable degree of common sense, he or she cannot fail to achieve at least a reasonable degree of success. The author addresses himself to the work with a degree of enthusiasm which carries the reader with him to the end.—*Kansas Farmer.*

Cook's Manual of the Apiary holds in America the same high rank, that is accorded in Germany to the book of which Dzierzon is the author; the only difference being that Prof. Cook's Manual combines the profoundness of the German pastor with the superiority of the practical American. He refers in several instances to Darwin; and does not belong to that class which hates everything that is foreign, for he speaks of German naturalists with great reverence.—*German Freidenker*, Milwaukee, Wis.

:o:

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☞ Owing to a combination of fortuitous circumstances, the editor of the BEE JOURNAL will be able to attend the National Society at Lexington, Ky., on Thursday and Friday, the second and third days of the session. We hope to meet a large and enthusiastic attendance.

☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

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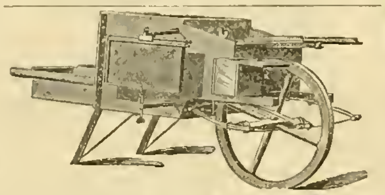

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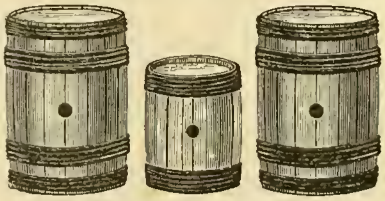

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THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII. CHICAGO, ILL., OCTOBER 5, 1881. No. 40.

THE AMERICAN BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR,
974 WEST MADISON ST., CHICAGO, ILL.

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The Honey Crop for 1881.

In the BEE JOURNAL of September 14th, we requested the bee-keepers of America to send us an abbreviated report of the result of the season's operations, and for the past week the postman who delivers our mail matter has been sorely puzzled as to "what has broken loose among bee-keepers!" to increase our daily receipts of postal cards by hundreds. We must embrace this occasion, while thanking our friends for the promptness with which they have responded to our request, to congratulate them upon the exceedingly favorable report which they bave presented.

We had hoped to be able to give the report in this issue, but over-rated our ability to properly collate it in time, and must content ourselves by briefly summarizing. Our returns are from more than 100,000 colonies at the commencement of the season, the majority of which were in bad condition for a vigorous campaign, and had to be put in shape after the harvest commenced. The average yield per colony in the spring we find to be over 75 pounds of surplus. The honey is of most excellent quality, in fact much above the average, and has found very ready sale so far as we can learn, at remunerative prices.

The increase reported amounts to over 65 per cent., and all report their bees in good to extra good condition—with plenty of bees and the choicest of stores. Several of those who have reported were largely engaged in queen-rearing, for which there was a brisk sale; so that, although their crop reports are not so large as they might have been, their receipts have not been lessened.

We have received no reports from California, but at this writing they are still coming in from all other points, and in our next issue we will be able to give an elaborate report. Enough, however, is now known to justify our wildest anticipations last spring. The reports in some cases are almost fabulous. Those who lost bees last winter could attribute it to misfortune; those who have failed to retrieve their losses, can blame only themselves—we advised them in time.

It is especially pleasing to be able to congratulate our readers on their generous returns, in view of the partial failure of nearly all other rural pursuits; and it but confirms us in asserting that apiculture is as little liable to disaster as any other pursuit, that misfortunes are more easily retrieved, and that the percentage of profit is very much greater as compared with the capital and labor invested.

* * *

☞ Mrs. L. Harrison, of Peoria, Ill., has kindly sent us a copy of *The Great West*, and calls attention to the following item:

> Bees have done unusually well in Colorado this year. First class native honey can be had for 25 cents per pound. The dry atmosphere and the great amount of flowers in Colorado, make this a profitable State for bee-keepers, and we wonder that more people do not engage in bee-culture and the production of honey. One hundred pounds of honey brings about $20 in the market—equal to an acre of wheat, ordinary seasons.

Undoubtedly Colorado has a promising future before it as a honey-producing State, and a few such seasons as this has been, will work wonders in developing it.

* * *

Transplanting Trees.—The Michigan *Farmer* makes the following very timely remarks on this subject:

> Among all the forest trees recommended for transplanting to our prairies, there are none so valuable to the bee-keepers as the linden. It forms not only a beautiful shade, but its rich perfumed blossoms yield to the bees, a large quantity of excellent honey. The tree bears transplanting well and is a free grower, and should not be overlooked in making a selection.

Attractive Packages for Honey.

As our readers know, the BEE JOURNAL has always been very outspoken in impressing upon apiarists the necessity of employing the most approved and attractive packages in preparing their honey for the market. Not only will it find a more ready sale, but generally at figures in excess of market rates. To make our frequent allusions to this subject more impressive, we make the following extract from a private letter dated Boston, Sept. 23, written by Mr. Frank L. Ripley, of Crocker & Blake, commission and wholesale dealers:

> Our market, more than any other, demands the most improved style of packages and crates. We are selling Salisbury's honey, of Geddes, N. Y., who uses a crate 14x6, with glass on the crate but none on the honey, 24 combs, weight from 20 to 23 pounds. It is one of the most salable packages we ever had. Honey will sell twice as quick in a desirable package. I am intending to go down in Maine and work up the honey-raising. They have the finest of honey, but in 10 to 15 lb. packages, just as the bees happen to make, in a frame they whittle out Yankee style. While I glory in being a Yankee, I think there are some things to be learned yet.

To further illustrate—in conversation recently with our son (A.H.N.) a honey dealer in Chicago, our attention was called to some beautiful honey in single comb boxes, which he said retailed readily at 30c. in the grocery stores, while some two-comb boxes (4 lbs., and slightly crooked), from the same producer, of the same quality and collected at the same time, would not retail at more than 23 to 25c., and would "drag at that." He also called attention to the fact that he found it necessary to repack much of his extracted honey from the barrels into 5, 10 and 15 gallon kegs, in order to meet the requirements of the market. "Of course," said he, "the cost of the new packages and the time consumed in repacking amounts to quite a little percentage, but I can make my sales much more readily, and therein lies the profit derived from any business." He said he thought another season he might be obliged to discriminate in prices, in buying extracted honey for the market, in favor of the kegs.

It must be apparent to every reflecting bee-keeper, that if a discrimination is made, and if it pays the city jobber to repack into the neat, convenient, salable kegs, it will pay him to use none other, and thereby not only effect a quicker sale and realize a stiffer price, but also save the cost of the barrel, which he otherwise throws away.

Since the above was put in type, we have received the following letter bearing upon the same subject, dated September 23, from Messrs. Stearns & Smith, who have for years furnished reliable San Francisco honey quotations for the BEE JOURNAL:

> In the Cincinnati market report, in your issue of Sept. 7, 1881, C. F. Muth says that he "paid King Cramer, for a lot of about 2,000 lbs. of comb honey, 17 cents per pound, and every comb perfect and in the Muth section, which speaks well for the producer," etc.; we can beat it. A. W. Hale, of San Bernardino county, shipped us 83 cases (about 5,000 lbs.) of comb honey, in Harbison sections, which was straight and fine. We have rendered him sales at 20 cents per pound for part of it, and will sell the remainder at the same figure. We believe that figure speaks better for the producer, as up to this lot there had been no sales at over 16 cents.

It not only speaks well for the shipper, but volumes for the house which takes an emulative pride in getting the highest prices for its patrons. If bee-keepers will employ their better talents in studying the wants of the market, then exercise their nicest skill in putting it up, there will be no need of centralizing their shipments in one or two commission houses, but, rather, plenty of respectable and responsible firms will not only solicit our consignments, but will prove themselves quite worthy of our confidence.

* * *

☞ In order to avoid misunderstanding, we will now inform our readers that our next issue may be two or three days late, in consequence of our attendance at the National Convention; but we trust it will possess sufficient additional interest to compensate for any annoyance from irregularity.

* * *

The Bee Journal in Canada.—The Essex *Chronicle* remarks as follows:

> We have before us the Weekly *Bee Journal*, which is devoted to the interests of scientific bee culture, and the production and sale of pure honey, and we must confess that we are highly pleased with it. It contains many thoughtfully written editorials and letters on bee culture; is remarkably liberal in dealing with the views of those who differ from it, and is a reliable authority on this subject. We, with others of this country, have studied considerably this pleasing and classic branch of industry, and can fully appreciate such a journal as we have before us.

* * *

☞ We learn, with regret, that Mr. G. M. Doolittle is very sick with malarial fever.

Live Oak Honey-Dew.

From Mr. E. P. Massey, of Waco, Texas, we have received several twigs of live oak, bearing leaves, acorns and balls, and accompanied with the following letter:

I send for your inspection, two or three small branches of the live oak, containing leaves, balls and acorns. In the fall after rains set in, the green balls are covered with drops of honey-dew, and in some cases the drops run together and drop off the ball. The bees gather large quantities of honey from these oaks, commencing in the morning before I can see a bee three feet from my nose, and this honey-dew continues until long after it gets too cold for bees to fly out. You will find two dry balls of last year's growth. Now, if this honey-dew is put there by an insect, as some claim, why not scatter it all over dry balls, acorns, leaves and limbs? And why is it, that we cannot see these insects? No; the honey exudes from the green balls in drops just perceptible up to drops too large for one bee to carry off at one load.

I have on my lot three of these oaks; under the largest one is my apiary and this tree shades about thirty-five feet of ground when the sun is at high meridian, and I have watched this thing for the eight years that I have been keeping bees. I would like to have your opinion on the subject.

We have had a poor honey season, owing to a thirteen weeks' drouth, yet the hives are all full of honey, and my bees will be in splendid fix for winter, after leaving our table supplied for the winter.

For many years the impression prevailed among naturalists that honey-dew was the excretion of *Aphides* (small insects) on the leaves of trees and plants, and that bees gathered and stored it in times of great scarcity of nectar secretion in the plants; but in later years it has been pretty definitely settled that honey-dew is mostly an exudation of sap or juice through the pores of the leaves and plants, and it is probably composed of the same chemical properties possessed by the nectar which is gathered by the bees from the corollas of flowers. Prof. Cook, in a letter written in December last, definitely settles the question that honey-dew is exuded from plants. He says: "Mr. Trelease has not only tasted the nectar secreted by the plant, but he has discovered the glands which secrete the nectar. These are often so large as to be easily recognized by the unaided vision. Mr. Trelease showed me the glands on species of cassia, acassia, pasiflora—the May-pop of Alabama—prunes, and the cotton plant. On a fine acassia growing in the botanical laboratory of the University, I not only saw the gland, but also the drop of nectar, which I found sweet to the taste." There are also insects which leave a liquid secretion on the leaves which may be gathered by the bees under the same conditions that they would take glucose or any other obnoxious substances; but these conditions occur so seldom that it is not often that this species of honey-dew is encountered.

☞ In noticing the *Rural Canadian*, on page 298, we called it a monthly, having found nothing, on looking it over, to indicate how often it was to be issued. We now learn from its editor that it is to be published semi-monthly, and we cheerfully correct it.

AMONG OUR EXCHANGES.

The Sense of Color in Bees.

The following article is taken from the London, England, *Standard*, of Sept. 8, 1881. It is an editorial criticism on the recent experiments of Sir John Lubbock on the possession of the sense of color by bees. Our read-will peruse it with interest:

Sir John Lubbock has been again experimenting upon bees. The especial object of his investigations has been to ascertain how far the bee possesses the sense of color. He has made use of slips of colored glass, to which the bees have been attracted by drops of honey sprinkled upon them. There are two conditions likely to influence the flight of a bee in pursuit of food. It may be attracted to a flower by its color, or by its odor. It may, in other words, either see the flower or else scent it or smell it.

Some flowers have a powerful odor; others are exquisitely colored. But, according to the reasoning of Sir John Lubbock, bees are unable to distinguish between the odor of one flower and that of another. They scent in each the peculiar fragrance of honey. In their ultimate choice, however, they are determined by the sense of color. Sir John, accordingly, provided himself for his experiments with various pieces of colored glass, green, orange, red, white and yellow. It would seem, indeed, that the resources of the prism were exhausted. An exact account was taken of the number of bees that visited each piece of glass on which a drop of honey was placed as a lure, and it is Sir John Lubbock's opinion that bees are, in a rough kind of way, sensitive to color, and that their favorite color is blue. The statistics which lead him to this conclusion we need not analyse.

When an experienced Naturalist assures us that he has arrived at a definite result, it is not safe to dispute his conclusions. Bees, it would now seem, have a special partiality for blue although we may remark, in passing, the color is uncommon in the vegetable kingdom. We may expect that they will attach themselves to Canterbury bells, to borage, or, indeed, to any flower the petals of which are of a cerulean tinge. Such is the conclusion at which Sir John Lubbock has arrived. Those who have watched the habits of bees will be probably otherwise minded. It is not a safe test to lay down a number of slips of colored glass, with a drop of honey upon each, and to count the number of visits made by itinerant bees to each slip. There may be draughts or currents of wind in the way; or the honey upon one particular slip may be thicker than it is upon the next, and may smell sweeter, and shoot its odor further, and may so attract more bees.

It is, indeed, always difficult to determine how far observations of this kind are to be absolutely accepted. In the present instance Sir John Lubbock finds that his blue slips of glass were visited by a larger number of bees than were the slips of other colors, and from this he draws his general inferences. But if any student of natural history will take the trouble to walk in his garden in the morning and to take especial notice of his borage, his Canterbury bells, and his mignonette, he will find the bees swarming upon the mignonette, while they neglect the borage and the Canterbury bells.

We might, indeed, test Sir John Lubbock's conclusions by a very simple experiment. If bees prefer blue to any other color, they will then prefer a clump of forget-me-not to a clump of mignonette. Let any man grow in his garden side by side a small patch of forget-me-not and a small patch of mignonette, and let him notice which of the two clumps is most frequented by bees. There can be little doubt as to the conclusion at which he will arrive. And the observations which Sir John Lubbock has made prove nothing more than that when all other considerations are equally balanced a bee prefers blue to any other colors.

Mr. Darwin, in his memorable book on the "Origin of Species," has left on record some remarks on the sense of color, to which subsequent investigations have added nothing. He tells us, among other things, that within his own knowledge, from facts reported to him by a good observer, susceptibility in cattle to the attacks of flies has a connection with their color, as is also the liability to be poisoned by particular plants.

Any one who is familiar with horses will know at once that, according to the current of tradition, there are certain colors in horses which denote peculiar characteristics. A strawberry roan or a flea-bitten gray will be strong and hardy. A chestnut will be courageous and mettlesome, but also delicate, and a chestnut with a white blaze and white stockings will be exceptionally liable to slight attacks of ill-health. It is also an ascertained fact that domestication strangely affects the color of animals. There is no wild animal which is pie-bald. But when domestication has followed through many generations the piebald color usually supervenes. Horses, rabbits, and guinea pigs are apt to be piebald. So, too, with mice and rats. Pigeons are of every possible color. Canaries range from a deep green cinnamon, which is almost black, to a yellow so pale that it is nearly white.

Nothing is stranger than the variety of color to be found in deer in an enclosed park. Some will be absolutely black; others will be dappled and spotted; others, again, will be almost white. And it is worth noticing that, while domestication tends to produce irregular color, or what is commonly called piebaldism, natural development produces color equally brilliant, but more distinctly and certainly distributed. The distribution of tints upon a guinea-pig or a piebald horse is absolutely uncertain. But the arrangement of colors upon a macaw, or a parrot, or a kingfisher is absolutely certain.

Why nature should thus compete with civilization it is impossible to conjecture. According to Mr. Darwin, shells at their southern limit, and when living in shallow water, vary and become more brightly colored than those of the same species taken from greater depths, or in latitudes further distant from the equator. Then there are certain colors peculiar to the London sparrow, and to the English cockle, mussel, and welk. On the other hand, there are hues and iridescences peculiar to the birds and to the shells of tropical climates. No one can account for these characteristics. A volume might be written upon the colors of butterflies, flowers, insects, birds and fish, and the more that was written upon the subject, the less we should probably know about it.

Meantime, it is certain that the laws and conditions of color in nature are but imperfectly understood. For instance, there has never yet been produced such a marval as a blue rose, although every gardener in Europe has been attempting for year upon year to grow one. And, whatever may be the conclusion of zoologists, we have before us the entire question of the productive influence of color in animal and vegetable life. Nature may attract bees to blue flowers, or may dress the kingfisher in every known color, or may throw the prism upon the neck of the turtle dove, or may dapple the fallow deer. We cannot tell how these tints and hues and markings are procured. It is enough for us to know that they exist.

It would, perhaps, be interesting if Sir John Lubbock, leaving for awhile his ants and bees, would favor us with his views on the sense of color in the human race. The subject is, for many reasons, difficult. Man, like the lower animals, is occasionally color blind, but there can be little doubt that in the course of infinite generations he has developed a certain definite sense of color, which stands him in good stead.

It is a singular thing that for some years past we have painted our houses and bed-rooms, and lobbies and halls, in a sober and almost penitential tint. The Greeks, whose villas are left in the South of Italy; the Romans, who made Pompeii their Brighton and Herculaneum its Kemp Town; and the Egyptians, from whom Rome, there can be little doubt, adopted their schemes of color in domestic architecture, were all given to strong effects.

Modern taste is more subdued. We rejoice in quiet hues and delicate tints. It would be curious to ascertain whether perception of color follows any definite rule. It would seem, according to Sir John Lubbock, that the sense of color in insects is but imperfectly developed. In animals and birds it becomes stronger. Amongst uncivilized races it assumes the form of a desire for bright tints and marked contrasts. It now has begun to assume an entirely new course, and to seek dim colors and quiet symphonies. One thing, at any rate, is certain, that the sense of color has played a most important part in the development of the human race, and that its subtleties remain as incomprehensible as those of the musical scale.

Colorado Bee and Honey Show.—The Colorado *Farmer* says:

Though there were but four or five exhibits of honey, still the fact was plain that this industry is becoming a distinct feature of farm and garden in Colorado. From all accounts, the present year has been a remarkably good one for the products of the apiary. A. L. Peabody had on the grounds a hive which showed the bees at work. Mr. James informed us that from one hive this season he had taken 120 lbs. of the best honey, from which he realized $30. There is no reason in the world why honey by the car load should be shipped into Colorado from California and Kansas, when the evidence of profit on bee-culture is made so clear by such a statement. In purity and sweetness, our home produce equals, if it is not even superior to what comes to us from elsewhere. These facts ought to set many to thinking, and from thinking to acting, until instead of perhaps, 5,000 being in the State, 500,000 should be scattered in the valleys and foothills, and honey be so abundant as to be an article for export, and adding largely to the material wealth of the State.

Seasonable Hints.—The Indiana *Farmer* gives the following caution and advice:

In almost all cases there is an easy remedy for any trouble with the bees, if ascertained this month. If a colony has not sufficient stores, it may now be fed; while, if you wait until later, there is trouble in so doing. Feeding at this season of the year should always be done with caution. For, although bees are not so much disposed to rob now, as early in the spring, yet, if a colony be left unguarded, so as to give the robbers a chance, they will clean it out on very short notice. Promptness is the spice of successful bee-keeping. Should you discover that anything is wrong with them, make an examination at once, and apply the remedy. Do not wait and think you will fix them some other time, but do it at once.

Badges.—Bee-keepers going to fairs should wear a badge with a gold bee on it. It will serve to introduce him to other bee men. We will send them for 10 cents, post paid.

CORRESPONDENCE

For the American Bee Journal.

Ten-Dollar Award for Best Queen.

COMMITTEE'S REPORT.

We, the undersigned, committee to award the prize of $10 offered by Rev. E. L. Briggs, of this place, for the best queen bee, by virtue of and under the conditions by him offered on page 251, AMERICAN BEE JOURNAL for August 10, 1881, beg leave to submit the following as our report thereon :

Before reporting our ratings thereon, it is due both to Mr. Briggs, ourselves and the parties forwarding queens, to state that Mr. B. never informed the committee of whom he had received a queen until after the award was made.

Using 100 points as the standard for each of the four qualifications, the following is the total number of points awarded the respective queens, each member of the committee making his own ratings independent of and without the knowledge of either of the other members :

No.	Name and Address.	Points.
1.—	J. Osborn & Bro., Leclaire, Iowa	1070
2.—	Wm. Lossing, Hokah, Minn	1090
3.—	C. H. Lake, Baltimore, Md., failed to arrive.	
4.—	Dr. I. P. Wilson, Burlington, Iowa	1155
5.—	M. H. Snyder, Elmwood, Ill	1015
6.—	W. P. Henderson, Murfreesboro, Tenn.	1093

We therefore award to Dr. I. P. Wilson the $10 prize, and state that she was without doubt the finest queen in every respect we ever saw. Had there been a second prize to award, the above ratings show that the contest would have been very close between Messrs. Henderson and Lossing. The committee were surprised at the size, beauty and disposition of all the queens entered, and extremely gratified at the very choice appearance of every colony in Mr. Briggs' apiary, and the evidence everywhere exhibited of a perfect knowledge of the bees and business throughout his apiary.

A. N. VAN CAMP, }
LYMAN ALLEN, } *Committee.*
I. PIGOTT. }
Wilton Junction, Iowa, Sept. 20.

* * *

For the American Bee Journal.

The Disposal of Honey.

JAMES HEDDON.

Producers at large have but little knowledge of the fixed laws of commerce ; still less of those which fluctuate, among the most important of which is the responsibility of the party to whom we trust our goods either upon 5, 10 or 30 days' credit, or on commission. If a worthless and unprincipled man gets the idea into his head that he will be dishonest, he generally alights upon the producing class, knowing that they have less opportunities to become acquainted with his scheme and himself, than any other set of men. There exists a strong determination in this world, that less than one-half of mankind shall do the work for all, and pretty successfully is this determination carried out, in a lawful and "business" like manner, or unlawful way. Somebody rents a small corner room on some commission street, and perhaps without capital enough to pay that rent more than a month, or a quarter at most in advance, and solicits your consignments. By some pretending circular, he gets in thousands of dollars' worth of goods, and after selling them out bids the business and consignees an affectionate adieu ; or, perhaps, "breaks down," with a fine brick house exempt from his creditors. In times like these when money is plentier, such transactions are not so numerous.

I have never lost a cent yet, but I have used caution. I have witnessed the losses of quite a number of bee-keepers, as well as other business men.

I feel that I want to know that the party I trust my money or goods with is *good*. I mean by good, that I can force a collection for any just claim. I have just read the able article of Mr. Geo. W. House, upon centralizing the trade, published in the BEE JOURNAL of Sept. 14, page 291, also the editor's comments thereon. Truly, the subject is a great one, and of vast importance to producers. I believe I agree with Mr. House in regard to centralizing the product on our markets, where placed by us to be sold on commission, but with the editor as regards buyers. "Supply and demand" make ups and downs in prices. I would like to see the number of buyers large, and their demands great. I know of no better way to increase buyers than to cut down the number of commission men. Buyers are opposed to us ; commission men are our agents, and if our honey was to-day all in the hands of one bee-keeper, he would have a "corner" on honey. If in the hands of eight or ten, they would have, or could make a corner on the honey crop, if they could agree so to do. Our agents can do the same. Buyers are "bears," for it is to their interest to depress the wholesale price of honey. Commission men are the "bulls," for they are working for our interests, and hold up the prices to the best of their ability.

I believe it is to my interest not to have your honey, reader, in opposition to mine to any greater degree than I can avoid. I feel sure that it opposes mine less in the same store than it would in another across the way. This is all the interest I have in the matter, you have the same. I do not suppose that all bee-keepers are going to ship to one firm, but I speak of this for the purpose of illustrating the point as taken by Mr. House and followed by me. I think the different names presented by him are well chosen firms, and I have full faith that this selection is made from his best understanding, and without the knowledge of the parties spoken of.

In regard to selling out-and-out, as in comparison with placing on commission, each has its advantages ; the out-and-out sale system some very important ones ; but as yet comb honey will no doubt bring more money to us put into the hands of the retailer through the commission house, than direct from us in most cases. Extracted honey is more of a staple, with a more uniform grade and price, and I have had by far better success selling out-and-out than by placing on commission. That the same condition of things may become true of comb honey I really hope, but I am of the opinion it has not arrived. I was surprised at learning from Mr. A. H. Newman the extent of his sales, and the various uses for extracted honey. These facts, together with my late impressions of the slow increase (or, rather, late decrease) of colonies, and small surplus yields, remove all fears of over-stocking the market, for a time at least.

Dowagiac, Mich., Sept. 17, 1881.

[One great objection to attempting the proposed centralization plan is its impracticability, and that it is impracticable Mr. Heddon virtually admits when he says, "I do not suppose that all bee-keepers are going to ship to one firm." Nor will all, or even the majority, be willing or able to see the peculiar advantages possessed by one commission house for disposing of their honey over others equally as responsible, quite as well known, just as favorably situated, and who would work as faithfully for the interests of those making consignments to them to be disposed of. We do not think we over-rate Mr. Heddon's business tact, when we assume that he would withhold his shipments from the central depot as soon as any, if he became satisfied his interests would be subserved thereby (whether for sale "out-and-out," or to be sold on commission by other parties), even though the majority of bee-keepers thought him unwise in-so doing. Business integrity and honest purposes are not inherent to a few firms alone in the United States, nor can they, however well-intending, expect to reverse the natural laws of trade. Many producers will ship to whom and where they may think to their best interests, regardless of the light in which some, or even the majority, may view it.—ED.]

* * *

For the American Bee Journal.

Improvement in Bees—Albinos, etc.

S. VALENTINE.

For 35 years I have given more or less attention to the care, culture and breeding of bees. About 6 years ago I procured the very best imported and home-bred Italians, and determined to breed for a high standard of purity, and after careful, frequent and repeated experiments, I find that the purest Italian bees run or develop into albinos, and my acquaintances who follow my method have the same experience.

Now, why is this result ? It may be partly owing to American climatic influences and breeding, but if we go back to the imported we find there a vast difference, and if we closely examine the best stocks, we see the white and corresponding colors cropping out in some of their progeny, and by breeding for improvement, we find as the good qualities are brought out the corresponding colors also develop. Now, is this climatic influence and breeding the cause, or is the imported Italian a cross from some other ? I am of the opinion that the Italian is not a pure race, but that it has been produced by some amalgamation ; I am also of the opinion that there was somewhere in the past a pure bee with white bands somewhat resembling the so-called albino, and from climatic influences and the method of breeding which I have practiced, I believe we have produced a bee that approximates that pure bee which may have existed in the past, if not now. Their kindness in handling, and being a larger bee, carrying larger loads, together with their quality as honey gatherers, leads me to prefer them to the Italian.

I have procured and experimented with nearly all the imported bees, including the Syrians, as well as other varieties that have been extolled for their qualities, yet, after all, I must affirm that for all practical purposes, for beauty, for kindness, for longevity of life, and for the quantity of honey they gather, I find none superior to the albino bee, nor even in all respects equal to it.

In the August number of *Gleanings*, page 409, under the caption "Albino Bees," etc., the editor makes use of the following language :

"When the friends have anything they would like me to see and report on, I shall be most happy to receive it, and will report to the best of my ability ; but the fact of my having received a nice present, I hope will in no way influence me in reporting for the benefit of the public. Friend Valentine has very kindly sent me a nice nucleus of his so-called albino bees. With his letter advising us of their shipment, comes his circular, from which we extract the following," etc.

Now this language intimates that he had received a present from me, which might possibly be designed to bias his judgment and elicit a laudatory editorial in behalf of the albino bee. I wish to say that the editor did not receive a present from me. He purchased an albino nucleus, but received no present.

Respecting his comments upon the description of the albino bee in my circular he is in error, as the facts will establish. The albino bees have three distinct yellow bands and three distinct white bands. The white is not as pure as snow, but is distinctly white, and not muddy or clouded, but so distinctly white that any ordinary eye can distinguish them, as I have frequently seen visitors to my apiary, who are not even amateurs in bee-culture, call attention to.

In my circular I dwelt most particularly on the color by way of description that these features are characteristic of this variety. I did not argue that the color affected the quality of the bee, as he intimated by saying that hens are not any better layers because they were selected from white-feathered ones out of a flock of many colors. The white-feathered hen may or may not be a better layer, but if so, no one would for a moment suppose that the white feathers made the particular difference. The quality of the hen is the character of her laying, but the color of her feathers is the natural appearance by which any one would naturally describe the hen. For all we know upon the subject, the white bands do not condition the good qualities of the albino bee, neither does the color condition the good qualities of any other variety or species ; but they do serve as a natural feature by which the variety may be described.

I cannot understand why any one will disparage the albino bee, or our bright American Italians, for the imported, unless it is for the greater profit they may derive from the sale of imported queens ; surely, it cannot be for their superior qualities as honey gatherers. I have thoroughly tested this for myself, and find that this is also the experience of my acquaintances who have given attention to bee-culture.

Double Pipe Creek, Md.

* * *

From the New York Tribune.

Bees, Glucose and Honey Comb.

PROF. A. J. COOK.

The following, from an article published in the *Popular Science Monthly*, and written by Harvey W. Wiley, shows what awkward work a man may make when he attempts to write about that of which he knows nothing. The misstatements are mischievous, and, as they have been widely copied, deserve correcting :

"Bees eat glucose with the greatest avidity, or, rather, they act as funnels by which the glucose is poured into the comb. For it is quite true that honey made by bees which have free access to glucose, differs scarcely at all from the glucose itself. But the quantity of honey which a bee will store away when fed on glucose, is truly wonderful. This gluttony, however, rapidly undermines the apiarian constitution, and the bee rarely lives to enjoy the fruits of its apparent good fortune. In commercial honey, which is entirely free from bee mediation, the comb is made of paraffine, and filled with pure glucose by appropriate machinery. The honey, for whiteness and beauty rivals the celebrated real white clover honey of Vermont, but can be sold at an immense profit at ½ the price."

1. Bees do not eat glucose with the greatest avidity. True, they wiil take it when they can get nothing better, and so they will cider, rotten apples, etc. But bees show their good sense by ignoring grape-sugar whenever they can get good wholesome sweets. 2. It is probably true that bees do merely transfer the glucose to the cells unchanged, but unless Prof. Wiley has made careful analyses, he does not know it. 3. "This gluttony, however, rapidly undermines the apiarian constitution, and the bee seldom lives to enjoy the fruits of its apparent good fortune." There is a grain of truth in this, as during long severe winters, when bees are confined for weeks at a time, this kind of food induces dysentery and death. The same is true of the poorer grades of our common cane sugars, so the wise apiarist never feeds any but coffee A or granulated sugar for winter supplies. Could the bees fly out often, they would receive no harm from glucose. Bees have been wintered safely on a diet of glucose, to the utter exclusion of other food; yet this is exceptional, and the practice

of feeding glucose for this and other reasons, is unwise and impolitic. 4. The statement that comb is made by hand and filled artificially, is indeed a crusher. This never has been done, cannot be done, and indeed, I think I hazard little when I say it never can be done. True, a coarse foundation is made which the bees are able to draw out and utilize, either as brood comb or store comb. But that man can fabricate this delicate structure, with its cells only 1-140th of an inch thick, is claiming what is not only untrue, but impossible. Men can, and do adulterate liquid or extracted honey with glucose, and make a beautiful syrup, so far as mere appearances go; but nature, and we may well thank her, has set at naught every effort to counterfeit comb honey. That, so far as the honey is concerned, is pure, clean and wholesome. Let no one, be he Professor or layman, ever dare to defame it.

Mich. Ag'l Coll., Lansing.

For the American Bee Journal.

More About Fertile Workers.

E. A. THOMAS.

In the BEE JOURNAL for Aug. 31, I noticed a friendly criticism on my article published in the BEE JOURNAL Aug. 10, by Mr. W. H. Andrews.

As Mr. Andrews has failed to comprehend my meaning, a few words of explanation may not be out of place, and may serve to make the matter more clear.

I am more than ever convinced that there is a difference in colonies having fertile workers, as I have just treated a case where the bees refused to rear a queen from brood given them. Such cases may be very rare, and, judging from Mr. Andrews' remarks upon this point, I think he never had such a case.

I remarked in my article, that I had never had a full colony with a fertile worker, and Mr. A. makes the following comment upon it:

"This implies at least one, and may be two or three things: 1. That Mr. Thomas never had a full colony. 2. That full colonies never lose their first queens. 3. That when they do lose their first queens, they are never without the means of supplying their loss."

That Mr. A. should doubt my ever having had a full colony, is the height of absurdity. A man who has been engaged exclusively in bee culture for years, as I have been, could hardly make the business profitable without a "full colony." After having shipped over 50 colonies during the last spring, I now have more than I know what to do with.

Mr. A. will please remember that I was speaking of my bees in my article, and when he says, "3rd, that when they do lose their first queens, they are never without the means of supplying their loss," he hits the nail square on the head. My full colonies are never without the means of rearing a queen, as I always insert frames of comb containing eggs into colonies having young queens, every two days, so that, should the queen be lost, the bees have the means of supplying her loss, and, so long as they have the means to rear another queen, there is no danger of their having a fertile worker.

If Mr. A. and all other apiarists will take this pains with colonies having young queens, they will never be troubled with fertile workers. Having a large number of nuclei to care for, I have not thought that it paid to insert brood, so that, should the first queen be lost, there will be no brood of any kind in the hive, and a nucleus in this condition soon becomes desperate. I raise my queen cells in full colonies, and insert in, nuclei when ready to hatch, so that they will have no brood until the first queen begins to lay, and it is my experience, that a colony without any brood of any kind will accept a fertile worker much sooner than one having even sealed brood. Mr. Andrews says he never saw the bees treat a fertile worker with the respect and consideration due a queen. I must conclude that he never saw one of those rare cases which I mentioned, and to which my remarks had reference.

Coleraine, Mass.

For the American Bee Journal.

Report of Honey Crop for 1881.

CHAS. DADANT & SON.

We give the following detailed account of our five apiaries, to show how much the crop can vary in apiaries not very far distant from each other. Our Champeau apiary is situated about 4 miles from here, yet the quantity of honey is very different:

No. of colonies last fall, about.425
Lost about 53
Sold about.....................100

We had, therefore, about 272 colonies, or a few more, to begin with.

REPORT OF THE CROP.

	Colonies.	No. now.	Crop in July.	Crop in Sept.
Apiary Baxter....	70	85	1,800	1,300
" Champeau.	50	65	2,200	1,250
" at Home ..	80	80	2,000	180
" Villemain .	40	60	1,500	380
" Jack	32	40	800	2,000
	272	330	8,300	5,110

These 13,400 lbs. are all extracted, except about 500 lbs. of comb honey. Although we designate the 5,110 lbs. as fall honey, it is mainly spring honey, having been gathered mostly on white clover in July and first of August.

Our crop, especially at home and in the Villemain apiary, was shortened on account of the dry weather. We have had no rain of any account for more than two months, and very warm weather all the time. The Jack apiary is near the Mississippi bottoms, which were covered with polygonaceæ as soon as the water receded. Our business of foundation making having increased, we were unable, for lack of time, to make as many swarms as we had anticipated.

Hamilton, Ill.

For the American Bee Journal.

Palestine or Holy Land Bees.

WM. J. WHITFIELD.

We were fortunate in having 2 of the Palestine queens come through the past winter in good condition, to start with in the spring, but as I had Italians that seemed to be in quite as good condition, I thought very little of them at first.

About June 1, I noticed they had more than double the bees on the wing than any other colony, and I took a glance at the inside, which showed 12 frames of brood in one, and 9 in the other, frames 1 foot square. I now began to watch them with interest. They gave just double the increase, and each colony gave ⅓ more honey than the best Italians, so I thought I would try and rear a few queens, re-queen all hybrids and those having old Italian queens. I reared the queens, but had no time to remove the old queens to make room for the young, till Saturday, Sept. 17. In some of the hybrid Italians, I found a few cells of brood just ready to hatch, but not an egg or cell with unsealed larvæ in any of them. The Palestine queens I found laying without exception, and all crowded with bees and honey. I went to Mr. Jones on Sept. 20, and procured one of his Island-mated queens to start another year with. I saw about 150 of his hives opened; his 3 men were employed in fixing them up for winter. There were Italians, Cyprians and Palestines, about in equal numbers, but only the Palestines were still laying. This decided me to take 2, instead of 1 queen. I was not a little disappointed to find that Mr. Jones had gone to the London, Ont., Exhibition, but I had the pleasure of inspecting a number of fine queens just arrived from Mr. Frank Benton, all in fine condition, having 2 combs 8 inches square and about a quart of bees with each. I would have obtained one of them, but, as Mr. Jones was not there, the men in charge would not part with one, not having orders to do so, although I offered three times the amount I would have given for one at this time of the season, for I desired to see what they would do.

Many mothers would not handle babies with as much care as these queens had.

Dundas, Ont., Sept. 22, 1881.

For the American Bee Journal.

The First Movable-Frame Hive.

C. J. ROBINSON.

I have written to Chas. H. Lake, of Baltimore, requesting him to take to the National Convention at Lexington, the first movable-comb frame hive seen in America. The hive with a colony of bees in it, was presented by King Otto, of Greece, to the lamented Richard Colvin, late of Baltimore.

The Grecian hive is four stories, that is four tiers of frames one above the other. The frames are about 8 inches deep and 13 inches in length. One side wall of the hive swings open like a door and the comb-frames slide in suspended on pendants and rabbets like the Langstroth frame. The hive proper is of double-walls—a hive within a hive with a vacant or dead-air space between the inner walls and outside walls. There are 4 iron staples or rings for suspending the hive between trees.

It was from an inspection of this hive that Rev. Mr. Langstroth got the idea of his movable-frame hive; at least I so understood it at that time, and Mr. Colvin so reported it. Mr. L. contrived a shallower hive than the Grecian model, using only 2 tiers of frames of greater depth and length, and opening from the top, allowing the frames to be lifted instead of being slid in from one side. I still use a hive having the features of the Grecian model except my hives open from the top. The dead-air feature of said hive brings in and utilizes a principle that is or might be the salvation of out-door wintering. The old hive from Greece is far superior to any chaff hive. Mr. Lake has a hive that he styles "Old Reliable," which is the result of years of remodling of the Grecian hive, and the best hive for both summer and winter in use.

The old hive is a curiosity of great interest, and I hope it will be on exhibition by Mr. Lake.

Richford, N. Y.

For the American Bee Journal.

The Purity of Drones.

W. H. ANDREWS.

In the Manual of the Apiary, page 89, Prof. Cook says:

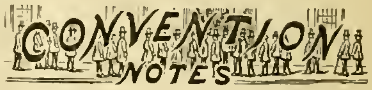
"The fact that parthenogenesis prevails in the production of drones, has led to the theory that from a pure queen, however mated, must ever come a pure drone."

Doctors widely differ as to the fact that led to this theory, and then admitting the fact, some of them dispute the theory—"the deduction." If this deduction cannot be sustained in practice, then it is true that too much theory has wrought hundreds of thousands of dollars damages to the bee-keepers of North America, since the introduction of the Italian bee. The practical, not theoretical, is what the yeomanry of our fraternity most need, and now demand, though they feel great trepidation; they would be willing to shed their shoes when they approach this field, if the paths over it were cleared of thorns.

Whether parthenogenesis prevails in the production of drones or not, or whether the theory said to rest upon that assumption is sustained by sound logic or not, may never be settled among the learned, but what is that to the practical bee-keeper? We know that an unmated queen can lay eggs that will hatch out drones, and drones only, and we also know that a mated queen will not lay drone eggs into worker comb, while we as well know that an unmated queen will lay her eggs into worker comb as readily as into drone comb. Now it is quite as easy for a bee-man who cannot read Greek, to imagine that the mating of a queen of one race with a drone of another race, affects the blood of her drone progeny, as it is for the savants to imagine that the fact of mating controls the queen in the disposition of her drone eggs in the comb, and that the want of mating leaves her reckless as to the welfare of her offspring, and allows her to become the mother of an innumerable host of dwarfs.

Let the doctors tell us in plain English, that an Italian queen mated with a German drone will produce drones uniform with those produced by her sister, mated with a drone of her own nationality. Then it will not be out of order for him to inform us that a black queen mated with a yellow drone will not produce drones showing plainly that they, too, have a parentage to be proud of.

McKinney, Tex.



Ontario Bee-Keepers' Association.

The above named body held its annual meeting on three successive evenings, during the second week of the Toronto Industrial Exhibition, Sept. 14, 15, 16. A brief summary of the proceedings, condensed from the reports given by the Toronto *Globe* and *Mail*, will show what our apicultural friends over the border have been saying and doing:

The second annual convention of the Ontario Bee-Keepers' Association, commenced on Tuesday evening in the executive room of the City Hall. There was a large attendance.

At 8 o'clock the President, Mr. D. A. Jones, of Beeton, took the chair, and in a few brief remarks stated the object for which the meeting was held, after which the Secretary, Mr. R. McKnight, of Owen Sound, read the minutes of the first annual Convention, which was held in Toronto during the Exhibition last year. The minutes were adopted.

The Secretary called the roll, after which Messrs. Dougall and Sandford were appointed a committee to audit the books and accounts.

The following gentlemen were appointed a committee to select subjects for discussion at the meeting this evening: Messrs. Hall, Wells, Clarke, Phillips, Woodward, Drs. Duncan and Nugent.

The President in his address referred to long speeches, either written or extemporaneous, as an objectionable feature of conventions, and suggested that the speeches should be short and pithy. Never was there such a severe winter in the experience of bee-keepers as last winter, in fact, many who were considered the most scientific bee-raisers in the country had lost all they possessed in consequence of the severe weather. The yield of honey last season was small, but the season was especially good for breeding. The price of honey, however, will be high, as butter is scarce and high in price. He advised all who had honey to sell, to hold back for a time, and a remunerative price would be insured. One gentleman had told him the previous day, that honey he would gladly have accepted 10 cts. per lb. for a few weeks ago he had since refused 15 cts. for. The hives, he said, should be carefully prepared for wintering, and he would advise all present to make such provision as would insure the safe-keeping of the bees. He himself had a number of fine hives spoiled for want of this. The proper regulating of bees in the fall was much more important than the wintering of them. “There never has been,” continued the President, “such a fine apiary exhibit in the world as the present one at the exhibition grounds, and it reflected great credit on the association.” (Cheers). In speaking of the various species of bees, he said he had been led to entertain a very high opinion of the *Apis dorsata* species, accounts of which had been very flattering. He had been doing his best to obtain a hive of them, but his efforts had been unsuccessful so far. He trusted to secure them shortly. There was another species of bee said to be even better than this, which a European friend of his had written to him about, and he hoped to be able to say more about it shortly. Canada, he said, was the finest country in the world for raising bees, and he was confident that 20 per cent. or more could easily be made by entering into the business with a will. Judging from the comparative success with which his bees were wintered this year, in view of its being such a severe one, it was fair to infer that any sort of bees could be successfully raised in Canada. After paying a high compliment to the Secretary, to whom he stated the success of the Association was largely due, the President resumed his seat amid much applause.

The Rev. W. F. Clarke, on being requested, addressed the meeting. The fact, he said, that the membership was increasing so rapidly, was a good evidence of the success of the Association. The great hindrence to the successful raising of bees was the fact the majority of people imagine that all they have to do is to set the hive on a stand and leave the rest to the bees. This is a mistake. Bees, like every other animal which is kept for the benefit of man, must be provided and cared for, or they will never prove successful. People should inform themselves on the subject before they go into the business, and then theory must be conjoined with practice, for the subject requires a great deal of thought and vigilance. People grumbled about bees being more “bother than they were worth,” but he would venture the assertion that there was not a pursuit which, if properly managed, would prove more remunerative than that of bee raising. The introduction of Italian bees to Canada had greatly benefitted the old stock. After dwelling on the qualities of the President, Mr. Jones, as a practical apiculturist, and on the great benefit that had accrued to the Association in consequence of his connection with it, Mr. Clarke concluded by stating that the Government should be asked to aid in the advancement of the industry, from which he said every township in the country might derive a revenue of $10,000 annually if the industry were properly managed.

SECOND EVENINO.

Mr. D. A. Jones, President, in the chair, and a large number of members were present. The Chairman stated that two cakes, one a ginger and the other a sponge, both sweetened with honey, had been sent to the Convention by Mrs. J. G. Wallace, of Brighton.

The cakes, being cut up, were passed to the members present, who discussed the merits, which, it might be said, were uncommonly good. It was stated that a cake sweetened with honey was better to keep than one sweetened with sugar, as the honey would keep it moist. The Chairman stated that if ladies would use honey in making cakes, they might do their baking in the winter time when it was cool, and have fresh cakes all through the summer.

On motion of Mr. Beech, seconded by Mr. S. Webster, a vote of thanks to Mrs. Wallace, who had kindly sent the cakes, was passed.

It was moved by W. F. Clarke, and seconded by N. B. Colcock, “That among the many uses of honey, its value, as a sweetening in the processes of cookery is one of the most important, especially in view of the adulteration practiced upon almost all grades of sugar, and this meeting takes the opportunity afforded by the presentation of Mrs. Wallace's excellent cakes, to call the attention of the public to the great superiority of honey to sugar in all cases in which an absolutely pure sweet is desired.” Carried.

QUESTIONS FOR DISCUSSION.

The Committee appointed to decide upon the subjects for discussion, reported the following: 1. Wintering. 2. Spring dwindling. 3. Deep *vs.* shallow frames. 4. Uses of comb foundation. 5. What is the cause of a colony fighting and killing others? 6. Final preparation of the hive for wintering, disposition of combs, etc. 7. Best mode of obtaining the largest yield of comb honey in sections. 8. Is pollen injurious to wintering? 9. Foul brood, its prevention and treatment. 10. The best way to winter bees in Muskoka.

The Secretary, who had also acted as Treasurer, read his report. He stated that a few weeks ago he had sent to the members a form of entry for the exhibition, together with a printed circular for the purpose of ascertaining what progress had been made in bee culture by the members. Twenty-seven members out of 68 had reported, and from them he had gathered the following: Last fall they put into winter quarters 1,534 colonies, or an average of 56 colonies each. Of these there were 1,254 taken out alive in the spring; 216 were lost by spring dwindling, leaving an aggregate working force of 905 colonies, or an average of 37 per member. At the time of reporting these, 906 were increased to 1,993, or an average of 74 colonies per member, as against 37 in the spring. This showed that notwithstanding the unusual mortality among bees last winter, there are now in the hands of these 27 members, 20 per cent. more bees than at the corresponding time last fall. The honey taken by the members who reported, amounted on an aggregate to 73,790 pounds, or an average of 81½ pounds for each colony held at the opening of the honey season. Over ¾ of the amount was taken by the extractor.

The report being found satisfactory, a vote of thanks was tendered to the Secretary for the satisfactory manner in which he had transacted the business of the Association during the year.

The meeting then went into discussion on the first subject, which was

WINTERING.

Several of the members related their experience in wintering bees. Mr. Hall, of Woodstock, stated that he commenced preparing on the 15th of September, and wintered until 15th of April. There was a cellar under the bee-house, which was built with walls 16 inches thick, packed with sawdust. When he put them out he had no dwindling; last year he had lost 2 out of 137 colonies.

President Jones stated that there was no surer way of killing bees than by disturbing them late in the fall. He had lost $1,000 worth of queens received from his Cyprus apiary late in December, to accommodate which he had been obliged to break up and divide a number of colonies. He always tried to get as many young bees late in the fall as possible, and when once the winter cluster was formed, he preferred not to disturb it.

In reply to a question, Mr. Jones stated that when bee-keepers were troubled with mice, they should use arsenic, granulated white sugar and flour in equal parts, as a poison.

Mr. Wallace, of Brighton, who had put in 32 last fall, had taken them all out. He had lost none by robbing, and none by dwidling. He had increased his by 67. He kept the temperature at 38° to 42°.

Mr. J. T. Beech, of Burnt River P. O., near Lindsay, stated that his mode of wintering differed from those who had given their experiences. He had commenced with 1 colony, and now he had 40. The President had said that if he disturbed bees in the fall it was not good for them. He, Mr. Beech, had disturbed his in December, and some which he had out of doors were in better condition in the spring than those he had placed in the cellar. There were dead bees found in the hives left in the cellar, and he did not pay much attention to the hives there. The cellar was well ventilated, for his family used it for ordinary purposes. They kept potatoes beside the hives, and the bees kept beside the potatoes, and kept well.

While the discussion of wintering was in progress, His Worship, the Mayor, entered, and was given a seat beside the President.

It was moved by Dr. Nugent, Strathroy, and seconded by Mr. Wallace, “That the Bee-Keepers' Association, in Convention assembled, desire to express their appreciation of the efforts of the Industrial Exhibition Association, of Toronto, to provide suitable accommodation for the proper display of the products with which they are most closely identified, but also of all classes of agricultural and manufacturing products, and to further express their opinion, that if a Dominion Exhibition is held in the year 1882, it should be held in the city of Toronto, and that aid should be granted thereto by the Dominion and Ontario Governments.” Carried.

After a limited discussion of several of the other subjects, the meeting adjourned.

A very interesting open air meeting of bee-keepers, was held in the morning in the tent adjoining the building devoted to the apiarian display on the exhibition grounds. Among the subjects discussed, was the difficulty in feeding up queens so as to get them to breed again, after they have ceased breeding in the fall; the proper distance between combs for wintering; keeping out moisture and mice; treatment for foul brood; queens laying drone eggs in worker cells; feeding bees; the existence of “honey dew,” and how it is formed, and many other interesting topics.

Mr. Jones exhibited a number of frames containing queen cells in different stages of development. The discussions were also listened to by a goodly number of persons who are desirous of learning something about bee culture, and the keenest interest was manifested by all.

THIRD EVENING.

After discussing the various questions which were placed before the meeting, Mr. McKnight suggested the necessity of taking steps to secure an Act of Incorporation.

Mr. S. Webster then moved, seconded by Dr. Nugent, that the President and Secretary of this Association, be instructed to take the necessary steps to secure an Act of Incorporation from the Ontario Legislature, in the names of the officers of the association for the coming year; also to use their endeavors to obtain a grant in aid of this organization, and to put it on the same footing as the Dairymen's Association, Fruit Growers' and Poultry Associations of the Province of Ontario. Carried unanimously.

The following gentlemen were appointed honorary members of this association: The Mayor of Toronto, the President of the Toronto Exhibition Association, Mr. Withroy, Mr. Jas. Mills, Principal of the Guelph Agricultural College, Prof. Brown, Guelph, and whatever other gentlemen the Executive Committee deem advisable.

The following resolution was carried: Resolved, “That the encouragement to the bee-keeping interest of the country by the Toronto Industrial Association, is an example that ought to be followed by all similar bodies throughout the Province of Ontario and the Dominion of Canada, to secure which desirable result this meeting urges upon the bee-keepers the importance of pressing the matter upon the attention of the directors of exhibitions in all parts of the country. In moving the above resolution, Dr. Nugent took occasion to remark upon the little interest taken in bee-keeping by the Provincial Exhibition, which was shortly to be opened at London. The prizes offered did not amount to much more than $15.

ELECTION OF OFFICERS.

The President begged to remind the members that he was not a candidate for re-election; indeed, he would regard it as a great favor to be allowed to retire, on account of the large amount of private business which he had to attend to.

The election of officers for the ensuing year, resulted as follows: Hon. Lewis Walbridge, Belleville, President; Mr. J. B. Hall, Woodstock, first Vice-President; Rev. W. F. Clarke, Listowel, second Vice-President; Mr. R. M. McKnight, Owen Sound, Secretary and Treasurer; and Messrs. D. A. Jones, Beeton, Dr. Nugent, Strathroy, W. C. Wells, Phillipstown, Dr. Shaver, Stratford, and S. Cornell, Lindsay, Committee.

Mr. D. A. Jones, and Rev. Mr. Clarke were appointed a delegation to the North American Bee-Keepers' Association, to be held at Lexington, Ky., Oct. 5-7, 1881.

Mr. Jones vacated the chair, and Mr. Hall, first vice-president, took the same.

A unanimous vote of thanks was passed to the retiring President, Mr. Jones, for the able way in which he had discharged his duties during the past year.

Mr. Jones thanked his friends, and promised to do all in his power for the association in the future, as he had done in the past.

A vote of thanks was also passed to the Secretary and Treasurer, for his valuable services during the year.

Mr. Jones then moved that the hearty thanks of the association be passed to *The Mail* and *The Globe* for the excellent reports which had been given of the meetings of the convention, both at the City Hall, and on the grounds during the exhibition. The motion was carried unanimously.

A vote of thanks was passed to the Mayor and Corporation, for the use of the room in which the meetings had been held.

On motion of Mr. Jones, it was resolved to hold the next meeting of the association in Toronto, during the exhibition of next year. The meeting then adjourned.

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Kentucky Bee-Keepers' Association.—The second annual convention of the Kentucky State Bee-Keepers' Association, will be held in the Exposition Building, in Louisville, Ky., on Wednesday and Thursday, Oct. 12 and 13, 1881.

A fine display of bee-keepers' supplies, honey, etc., is expected, and some of the most prominent bee-keepers in America, who will be in attendance at the National Bee-Keepers' Convention, at Lexington, Oct. 5, 6, and 7, are expected to attend. All are invited. N. P. ALLEN, *Pres.*

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☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.

N. E. FRANCE, *Sec.*, Platteville, Wis.

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☞ The Michigan State Bee-Keepers' Association, will convene at Battle Creek, on Thursday, Dec. 8, 1881. We have reason to expect one of the largest and most interesting meetings we have ever held. Let all arrange to be present. All District Associations should send delegates. Each person should come with their best experience in their hands, ready to hand it over to the others of the fraternity. It is hoped that all will bring the fullest report possible from their region. Commutation rates are expected on railroads. A. J. COOK, *Pres.*

T. F. BINGHAM, *Sec.*

SELECTIONS FROM OUR LETTER BOX

More Honey than Ever.—I should indeed feel lost without the weekly visits of the BEE JOURNAL. I suffered severely last spring, with the majority of bee-keepers, but have done well this year, therefore produced more honey per hive than during any one year since I began the business. The dry weather has shortened the product te some extent here, but nothing compared to many other places in our state. The local demand for honey is all that I could ask for. Success to the BEE JOURNAL.

SAMUEL STEVENSON, M. D.
Morenci, Mich., Sept. 24, 1881.

No Surplus.—My bees are not doing well this season; no increase and no surplus honey. I have been feeding some time. Bees on the bottom lands are doing well. I lost all the bees I had in chaff hives, last winter. I shall not try them again very soon. I prefer a nail-keg for wintering purposes to a chaff hive.

H. W. HITT.
Merritt, Ill., Sept. 26, 1881.

Sample Copy for Next Year.—I was very much pleased to note the change in size and general appearance of our BEE JOURNAL. I did not like the Weekly BEE JOURNAL in its original form, but I belong to those who are not willing to complain, unless it should be a very essential error. Some single articles which have recently appeared in the BEE JOURNAL, are worth to me more than the price of the JOURNAL for the whole year.

WM. S. BARCLAY.
Beaver, Penn., Sept. 23, 1881.

California Honey Crop.—Permit me to correct an extract that you copied from the San Francisco *Examiner*, in regard to the honey crop of Southern California. While we are always ready and willing to present our productions to the consideration of the public, we are unwilling to be misrepresented. He says "Last year the honey crop of San Diego county amounted to 1,291,800 lbs., and this year it will be larger." It is now a well established fact that we will not produce ¼ of a crop. I cannot say how much the other counties referred to will make, but I do know that a great many apiarists will not ship a pound this season. In a few favored localities as much as ½ of a crop will be made. A great many others, none. The spring was too cold. Our bees are in good condition and with a fair season we can produce more honey and a better article, than any other county in Uncle Sam's domain. I think I have found a new bee food, especially for this section, it is the black-eyed pea, called by western people black-eyed bean. It is the old fashioned Southern black-eyed pea, most excellent for man and beast, and has proved a splendid bee forage with me; the bees are on it early and late. Here the vines produce two crops, so that it gives early and late feed for bees. There is no better bean or pea grown for the table than this, either green or dried. At this time the vines or in full bloom, second crop.

M. C. ALVORDSON.
Santa Maria, Cal., Sept. 18, 1881.

About 330 lbs. of Honey from one Colony.—I wish to show what I have done alone with 108 colonies in spring. I now have 208 colonies, and 15,100 lbs. of extracted and 4,500 lbs. of comb honey. My best yield from one colony is 330 lbs. of comb honey and its increase, which was 4 artificial swarms, with plenty of honey. I have kept bees 16 years, I think I know how to get honey, if I cannot winter so well as some. My comb honey is all sold at 16c. for white and 12c. for dark.

W. L. COGGSHALL.
West Groton, N. Y., Sept. 19, 1881.

Bingham's Bee Report.—I had in the spring 55 colonies, have now 119; extracted, light, 3,000 lbs; bees in fine condition for winter. The scarcity of fruit has made a prompt demand and all our honey is sold but 800 lbs. Sold at 10c. in 30 lb. tin cans, and all returned or paid for by the purchaser.

T. F. BINGHAM.
Abronia, Mich., Sept. 22, 1881.

My Honey Yield.—I wintered with a loss of only 10 per cent. I started with 70 colonies in March. Many of the queens were inefficient and not having time to replace them (except four or five) the whole surplus was taken from 50 colonies. My total product is 3,500 lbs; of which 2,800 was comb honey. Too much cannot be said in favor of comb foundation. Its use was the key to whatever success I have had. Had I used full sized starters for the sections I am sure I would have saved many times the cost. Very little, if any, surplus has been made by bees managed under the old system.

J. W. PORTER.
Charlottesville, Va., Sept. 27, 1881.

Nearly 140 lbs. to the Colony in Spring.—I had 108 colonies in the spring, have now 131 colonies. Have extracted 9,000 lbs. of light honey and 5,400 lbs. of dark honey; comb honey 325 lbs.; total, 14,725 lbs. Bees are now in good condition. I have not got quite through extracting yet, so have had to estimate a little, but it is very close to what I will actually have.

O. O. POPPLETON.
Williamstown, Iowa. Sept. 26, 1881.

Chaff Hives.—I had 8 good colonies in spring and 2 queenless. I have extracted no honey, but I have taken 700 lbs. comb honey, mostly in one pound sections. Bees are now in good condition. My bees wintered without loss in double-walled chaff hives out of doors. I had plenty of loose chaff on top of frames as an absorbent. Most of the bees around me died.

E. F. SMITH.
Smyrna, N. Y., Sept. 19, 1881.

The Fall Honey Crop.—The honey crop here has been a failure, on account of the drouth. I have had the blues for some time, thinking I would have to feed again this fall, but we had a good rain 2 weeks ago, and the golden rod has been giving us plenty of honey, and I think they will have plenty for winter. Let me urge all bee-keepers to see that their bees have plenty of honey, and pack them in chaff before the weather gets too cold. Success to the BEE JOURNAL. I know I have made many times its cost by taking the advice of experienced bee-keepers.

B. M. LINGLE.
Paoli, Ind., Sept. 26, 1881.

Drones from an Unfertile Queen.—In Dr. Tinker's article on "Reproduction in the Honey Bee," on page 299, vol. 17, of the BEE JOURNAL, he says: "It has not yet been shown that the drone of virgin queens possess full virile powers. Many have endeavored to get queens fertilized early in the spring by such drones, but have failed." I have had but little experience of this kind, and have given it very little thought. I have always believed that drones from a virgin queen did have full virile powers, and will give a case of my own that confirms me in that belief: In the winter of 1878-9, I had a strong colony of bees that lost its queen during the winter, and reared another from the eggs left when the old queen was lost. When I examined, in March, I found 3 combs partly filled with drones. On the 12th, I removed the queen and gave them a frame from another hive with eggs and young brood. On the 20th, I noticed drones flying, and on the 28th, I found my young queen hatched, on the 11th of April she commenced to lay worker eggs, and proved to be a good queen, and was purely mated. I know of no other Italian bees within 4 miles, and did not have any other drones flying until May. I may be mistaken about my queen mating with one of the drones from the virgin queen, but think it hardly probable that any others were flying that early, as it was a very wet and backward spring.

L. R. JACKSON.
Fairland, Ind., Sept. 23, 1881.

Hardly an Indorsement.—On page 302 of the BEE JOURNAL, you say your correspondent, Jas. E. Cady, "does serious injustice to Mr. Heddon." If you will examine page 15 of Mr. Heddon's circular and price-list, and see what he says under the head of "Dollar Queens," you will see that your correspondent does Mr. Heddon no injustice. If this is not a voluntary puff for H. A. Burch & Co., please tell us through the BEE JOURNAL what it does mean, for I confess I cannot understand it otherwise.

L. K. DICKEY.
High Point, Ga., Sept. 24, 1881.

[The following, which had escaped our notice, is the passage above referred to:

"I am not prepared to furnish my customers with dollar or warranted queens during 1881, but will say that having visited the apiary of H. A. Burch & Co., of South Haven, Mich., and closely inspected their bees, have found them more uniformly pure than any I have seen; hence, purchases of dollar and warranted queens from their stock will likely prove satisfactory."

True, it does look like a voluntary "puff" for Mr. Burch's bees; and almost any of us might have said perhaps nearly the same of anybody whose specialty we considered really superior, and we do not think Mr. Heddon anticipated any other construction would be placed upon it.

We have received many complaints against Mr. H. A. Burch, in fact, quite enough to fill an issue of our paper, but as we have published enough to satisfy our readers we had good reasons for discontinuing his advertisement, we shall print no more of them.—ED.]

A Lady's Experience.—I had 37 colonies in the spring—have now 54. I have extracted 10 lbs. of light honey and 50 lbs. of dark; comb honey 3,700 lbs. Bees are now in good condition.

HATTIE A. HEATON.
Charlton, N. Y., Sept. 26, 1881.

The Weekly One Good Meal.—I like the BEE JOURNAL very much, as a weekly. It does not contain so much but it can be read at a single sitting. Bees have been nearly a failure with me this year.

M. C. STEVENS.
La Fayette, Ind., Sept. 28, 1881.

No Exhibits at Toledo, O., Fair.—Since all items of information on the honey question may be of use to some, I will say that I attended the "State Fair" at Toledo, O., and exhibited a case of honey. There was no other exhibit of any thing in the apiarian line from the States of Indiana, Ohio and Michigan. This shows how many bees were destroyed last winter in this part of the country.

L. EASTWOOD.
Waterville, O., Sept. 26, 1881.

[Does it not rather show a lack of interest and enterprise in the bee-keepers of that section of the country? Until lately, apathy has been the rule; now an interest is being awakened, that will, we hope, be lasting.—ED.]

Remedy for Ants in the Apiary, Etc.—On Oct. 28, I prepared 38 colonies, in good condition, for winter, on their summer stands. I lost but I up to the 1st of March. On May 1, I had only 18, and nearly all of them weak; 1 was queenless. My present number is 21, mostly Italians, in good condition, but some require feeding, as they have lost, on an average, 11 pounds since the honey season closed. I have extracted 771 lbs. of honey, and have 29 lbs. of comb honey. As a remedy for ants, I have used fine salt for 20 years, and seldom have to make the second application. What a weekly intellectual feast is to a monthly surfeit, such is the Weekly to a monthly journal. Long may the welcome Weekly BEE JOURNAL prosper.

J. L. WOLCOTT.
Bloomington, Ill., Sept 26, 1881.

Honey Season in Massachusetts.—The honey season here has been one of the poorest I have known for years. Raspberries and white clover proved a failure, on account of bad weather, and basswood did but little better. It has been a good season for increase, there being just honey enough to keep the bees breeding rapidly. I am more than pleased with the form in which the BEE JOURNAL is to be published for 1882—so convenient for binding. I cannot well see how any one (even if they have only 1 colony of bees), can do without it.

E. A. THOMAS.
Coleraine, Mass., Sept. 8, 1881.

But Little Surplus Honey.—I have 3 small apiaries. No. 1 had 3 colonies last spring; 8 now; 6 of them making surplus; all strong; are doing well; Italians; Langstroth hives. No 2 had 10 colonies last spring; 26 now; all strong; are doing well; hybrids; Langstroth hives. No. 3 had 16 colonies last spring; 28 now; all strong; are mostly blacks; Langstroth hives. I have received but little surplus honey, but all three apiaries are now doing well on smartweed.

S. GOODRICH.
Urbana, Ill., Sept. 26, 1881.

A Correction.—In No. 37, page 292, "Ants in the Apiary," 3rd line from bottom, read I ounce, instead of 10.

A. B. McLAVY.
Bastrop, Tex., Sept. 20, 1881.

☞ Owing to the fact that the time of the regular meeting of the Union Bee Association, at Shelbyville, Ky., conflicts with the time fixed by the executive committee, to hold the National at Lexington, the meeting of the Union, at Shelbyville, has been postponed till the 20th of October.

G. W. DEMAREE, *Sec.*
Christiansburg, Ky., Sept. 3, 1881.

☞ The Rock River Valley Bee-Keepers' Convention, will be held at Monroe Center, on the third Tuesday in October. We hope a good attendance will be the outcome, and the bee interest revived.

D. A. CIPPERLY, *Sec.*

☞ The North Eastern Wis. Bee-Keepers' Association, will hold its fall meeting at Peewaukee, Wis., on Tuesday and Wednesday, Oct. 11 and 12. A full attendance is cordially requested. Notice of the plauce of meeting will be found at the local Post Office.

GEO. CHURCH, *Pres.*, Neenah, Wis.
FRANCES DUNHAM, *Sec.*, Depere, Wis.

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States.

C. C. MILLER, M. D., *Pres.*
C. C. COFFINBERRY, *Sec.*

☞ The Western Michigan Bee-Keepers' Association will meet in Berlin, Ottawa, Co., Mich., Thursday, Oct. 27, 1881, in Huntley's Hall, at 10:30 a. m. All interested, are cordially invited.

WM. M. S. DODGE, *Sec.*
Coopersville, Mich., Aug. 29, 1881.

☞ The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. GOODNO. *Sec.*

Special Notices.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

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☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

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Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆ ◆ ◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆ ◆ ◆

☞ Articles for publication must be written on a separate piece of paper from items of business.

◆ ◆ ◆

Photographs of prominent Apiarists—Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

◆ ◆ ◆

☞ When changing a postoffice address, mention the *old* as well as the new address.

◆ ◆ ◆

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆ ◆ ◆

Deserving Articles are Always Appreciated.—The exceptional cleanliness of Parker's Hair Balsam makes it popular. Gray hairs are impossible with its occasional use. 40w4t

◆ ◆ ◆

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆ ◆ ◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

◆ ◆ ◆

Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. It will pay to devote a few hours to the BEE JOURNAL.

◆ ◆ ◆

It is the Height of Folly to wait until you are in bed with disease you may not get over for months, when you can be cured during the early symptoms by Parker's Ginger Tonic. We have known the sickest families made the healthiest by a timely use of this pure medicine.—*Observer*. 40w4t

◆ ◆ ◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆ ◆ ◆

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

◆ ◆ ◆

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL, }
Saturday, 10 a. m., Oct. 1, 1881. }

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. I have just purchased a car load of extracted at current prices

We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@22c.

AL. H. NEWMAN, 972 W. Madison St.

CLEVELAND.

HONEY—There is a slight improvement in our market for comb honey. One pound unglassed sections find ready sale at 21c. for white, and 19@20c. for 2 lb. sections. Extracted honey continues slow at 10@12c.

BEESWAX—20@22c.

A. C. KENDEL, 115 Ontario Street.

NEW YORK.

HONEY—The market is well supplied at present, but there is a large prospective demand.

We quote as follows: White comb, in small boxes, 18@20c; dark, in small boxes, 15@17c. Extracted, white, 10@12c.; dark, 7@9c.

BEESWAX.—Prime quality, 22@24c.

THORN & CO., 11 and 13 Devoe avenue.

CINCINNATI.

HONEY—Is in good demand here now.

I quote: Good comb honey, in sections, is worth 14@16c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

BOSTON.

HONEY.—Our honey trade has now fairly commenced, and we are selling quite freely. We find that one-pound combs are a very desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 21@22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

SAN FRANCISCO.

HONEY.—Sales of choice comb, to arrive, have been effected at 20c. for small lots. It is doubtful if an order for a large lot of choice comb could be filled in this market. Choice extracted, in barrels, is quotable at 9@9½c.

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 9@10½c.; dark and candied, 8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.

ST. LOUIS.

HONEY.—In fair request. Strained, 8@9c.; extracted, 10@12c.; comb, 16@18c—latter for bright.

BEESWAX—Prime yellow sells at 20@21c.

R. C. GREER & CO., 117 N. Main Street.

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX—Best light 23@25c.—*Philadelphia Merchants' Guide.*

Local Convention Directory.

1881. *Time and Place of Meeting.*

Sept. 29—Southwestern Iowa, near Corning, Iowa.
W. J. Oliver, Sec.
Oct. 4—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
5—Southeastern Mich., at Ann Arbor, Mich.
5-7—National, at Lexington, Ky.
Dr. E. Parmly, Sec., New York City.
12—Kentucky State, at Louisville, Ky.
11, 12—Northern Michigan, at Maple Rapids.
O. R. Goodno, Sec., Carson City, Mich.
11, 12—Northeastern Wis., at Pewaukee, Wis.
Frances Dunham, Sec., DePere, Wis.
12—Central Ky., in Exp. B'd'g, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.
18—Rock River Valley, at Monroe Center, Ill.
D. A. Cipperly, Sec., Monroe, Ill.
20—Union Kentucky, at Shelbyville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
25, 26—Northwestern District, at Chicago, Ill.
C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.
Dec. 8—Michigan State, at Battle Creek, Mich.
T. F. Bingham, Sec., Abronia, Mich.
1882.
Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Advertisements.

THE AMERICAN BEE JOURNAL is the oldest Bee Paper in America, and has a large circulation in every State, Territory and Province, among farmers, mechanics, professional and business men, and is, therefore, the best advertising medium.

TIN PAILS FOR HONEY.

These Pails have a full cover, and are excellent for marketing Candied Honey. The gallon and half gallon pails have a bail or handle, the quarts and pints have none.

Assorted samples of the four sizes, put inside one another as a nest, price 50 cents. These pails are very useful for many other purposes, after being emptied of the honey by consumers. The following are the prices:

	Per Doz.	Per 100
Gallon, holding 10 lbs. of honey....	$1.80....	$12.00
Half Gallon, " 5 " "	1.50....	9.00
Quart, " 2½ " " ...	1.20....	7.00
Pint, " 1¼ " "	.75....	4.00

ALFRED H. NEWMAN,
972 West Madison Street, Chicago, Ill.

The British Bee Journal,

AND BEE-KEEPER'S ADVISER.

The *British Bee Journal* is published monthly at $1.75, and contains the best practical information for the time being, showing what to do, and when and how to do it. **C. N. ABBOTT**, Bee Master School of Apiculture, Fairlawn, Southall, London.

THE AMERICAN POULTRY JOURNAL.

Is a 32-page, beautifully Illustrated Monthly Magazi[ne] devoted to

POULTRY, PIGEONS AND PET STOC[K]

It has the largest corps of practical breeders as edit[ors] of any journal of its class in Americ[a], and is

THE FINEST POULTRY JOURNAL IN THE WORLD.

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Ginger, Buchu, Mandrake, Stillingia, and many of the best medicines known are combined in Parker's Ginger Tonic, into a medicine of such varied powers, as to make it the greatest Blood Purifier and the Best Health & Strength Restorer Ever Used.

It cures Rheumatism, Sleeplessness, & diseases of the Stomach, Bowels, Lungs, Liver & Kidneys, & is entirely different from Bitters, Ginger Essences and other Tonics, as it never intoxicates. Hiscox & Co., Chemists, N. Y.

Parker's Hair Balsam. The Best, Cleanest, and Most Economical Hair Dressing. Never fails to restore the youthful color to gray hair.

50c. and $1 sizes. Large Saving Buying Dollar Size.

GOLD MEDAL Awarded the Author. A new and great Medical Work, warranted the best and cheapest, indispensable to every man, entitled "The Science of Life, or Self-Preservation;" bound in finest French muslin, embossed, full gilt, 300 pp., contains beautiful steel engravings, 125 prescriptions, price only $1.25 sent by mail; illustrated sample, 6c; send now. Address Peabody Medical institute or Dr. W. H. PARKER, No. 4 Bulfinch st., Boston. 22w1y

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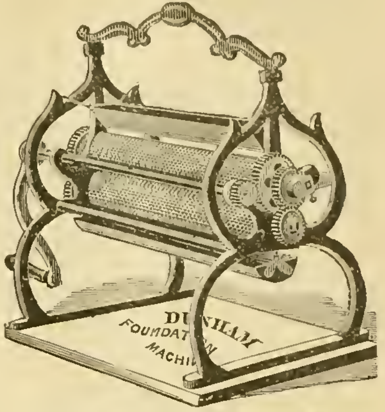
Inventor and Sole Manufacturer of the



Dunham Foundation Mill,

Patented Aug. 23th, 1881.

☞ New Circular and Samples free. ☜

1smtf FRANCES DUNHAM, DePere, Wis.

W. Z. HUTCHINSON,

Rogersville, Genesee County, Mich.,

Makes a *specialty* of rearing fine Italian queens. All queens bred from imported queens, and from the purest and best home-bred queens, and the cells built in full colonies. No black bees in the vicinity. Single queen, $1.00; six queens for $5.00; twelve or more, 75c. each. Tested queens, $2.00 each. Safe arrival by mail guaranteed. Send money by draft, registered letter, or by money order drawn on Flint, Mich. 28eowtf

BUY the BEST.

The best informed bee-keepers in the United States, say that our

DOUBLE-DRAFT QUINBY SMOKER

is decidedly the BEST now made. Hetherington discards all others, and orders two dozen for his own use. Doolittle says it is unequaled. So say all who see and use it. Price, by mail, **$1.50** and **$1.75.**

OUR BOOK,

Quinby's New Bee-Keeping,

continues to grow in popularity, and is the

Most Practical Work

published. Price, by mail, **$1.50.** We sell

Everything Used in Advanced Bee-Culture.

Send for Illustrated Circular to

L. C. ROOT & BRO.,
26smtf MOHAWK, NEW YORK.

SEND POSTAL for my 12-page circular price list of **Italian, Cyprian and Holy Land Bees, Queens and Apiarian Supplies.**
H. H. BROWN,
34sm4t Light Street, Columbia Co., Pa.

HEADQUARTERS IN THE SOUTH,

for the manufacture and sale of **BEE-KEEPERS' SUPPLIES, ITALIAN QUEENS** and **BEES**, all bred from mothers of my own importation—Dollar Queens, $1; Tested Queens, $2.50 4-frame Nucleus, $5. Safe arrival and satisfaction guaranteed. Send for my illustrated catalogue.
22mtf PAUL L. VIALLON, Bayou Goula, La.

Friends, if you are in any way interested in

BEES OR HONEY

We will with pleasure send you a sample copy of

Monthly Gleanings in Bee-Culture,

with a descriptive price-list of the latest improvements in **Hives, Honey Extractors, Artificial Comb, Section Honey Boxes**, all books and journals, and everything pertaining to Bee Culture. *Nothing Patented.* Simply send your address on a postal card, *written plainly*, to
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JOSEPH D. ENAS,

(Sunny Side Apiary,)

Pure Italian Queens, Bees, Colonies, *Nuclei, Comb Foundation, etc.*

Address. **Napa, Napa County, Cal.**
9m9t

C. Olm's Comb Foundation Machine.

☞ Send for Sample and Circular.
18mtf **C. OLM**, Fond du Lac, Wis.

AGENTS WANTED to sell Dr. Chase's 2,000 Recipe Book. *Sells at Sight.* Double your money Address Dr. Chase's Printing House, Ann Arbor, Mich
36m1y

SEND for MY CIRCULAR and PRICE LIST of **Italian Colonies, Queens, Nuclei and Apiarian Supplies.**
H. H. BROWN,
18mtf **Light Street, Col. Co., Pa.**

THE AMERICAN BEE JOURNAL

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A line of this type will contain about **eight words**; fourteen lines will occupy 1 inch of space.

One to three weeks, each insertion, **20c.** per line.
Four " or more" " **18c.** "
Eight, " " " " **15c.** "
Thirteen " " " " **12c.** "
Twenty-six " " " " **10c.** "
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974 West Madison Street., **Chicago, Ill.**

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☞ Many will be glad to know that Prof. Cook intends to be at the National Convention. His friends in the Southern and Middle States will be glad to make his acquaintance.

◆

☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

◆

☞ Subscriptions may commence with the first number of any month in the year.

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39w1y L. C. AXTELL, Roseville, Warren Co., Ill.

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Warranted $1.00, Tested $1.50, 10 frame Colonies $5.75 to $8. ☞ Send for Circular and save money
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Honey Plants.
I keep at all times a full supply of Seeds for Honey Plants, including
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Send for my catalogue which gives prices and instructions for planting—sent free upon application.
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The Extractor is made of all metal, is always ready for use, easily cleaned, and will last a lifetime. In fact, it has only to be used to be appreciated. Every Bee-keeper should send for my circular, giving details about the care of bees, and how to get the most Honey.
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65 *ENGRAVINGS.*
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A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information,
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Carries honey from the hive to the Extractor, a set of apiarian tools, metal-lined drawers for broken combs and fragments of wax, revolving comb-hanger, which holds comb firmly while pruning or cutting out queen cells, writing desk, and wash basin; will not break nor bruise combs; adjusts to fit all sizes of extracting and brood combs, and is less laborious to handle than the ordinary hand-baskets. Write your address on a postal card, and address it to **JOHN M. DAVIS,**
30w1y Patentee and Proprietor, Spring Hill, Tenn.

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SCROLL SAWS,
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All bred from Imported Mothers. Simplicity hives, Gallup frames. Twelve frames to a hive. Combs straight, mostly built on foundation. In all respects in the best condition. These bees have made a most excellent record this year. Single colonies, $8; ten or more colonies, $7 per colony.
40w4t **O. CLUTE, Iowa City, Iowa.**

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Bee-Keeper's Guide; or, Cook's Manual of the Apiary.—Entirely re-written, elegantly illustrated and fully "up with the times" on every subject of bee-culture. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, **$1.25**; paper cover, **$1.**

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Dzierzon Theory;—presents the fundamental principles of bee-culture, and furnishes the facts and arguments to demonstrate them. **15** c.

Honey, as Food and Medicine, by Thomas G. Newman.—This pamphlet discourses upon the Ancient History of Bees and Honey, the nature, quality, sources, and preparation of Honey for the Market; Honey as food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, etc; and Honey as Medicine, with many useful Recipes. It is intended for consumers, and should be scattered by thousands, creating a demand for honey everywhere. Published in **English** and **German.** Price for either edition, **6c.**; per dozen, **50c.**

Wintering Bees.—This contains the Prize Essays on this subject, read before the Centennial Bee-Keepers' Association. The Prize—$25 in gold—was awarded to Prof Cook's Essay, which is here given in full. Price, **10c.**

The Hive I Use—Being a description of the hive used by G. M. Doolittle. Price, **5c.**

Extracted Honey; Harvesting, Handling and Marketing.—A 24-page pamphlet, by Ch. & C. P. Dadant, giving in detail the methods and management adopted in their apiary. This contains many useful hints.—Price **15c.**

Practical Hints to Bee-Keepers, by Chas. F. Muth; 32 pages. It gives Mr. Muth's views on the management of bees, Price, **10c.**

Food Adulteration; What we eat and should not eat. This book should be in every family, and ought to create a sentiment against adulteration of food products, and demand a law to protect the consumer against the numerous health-destroying adulterations offered as food. 200 pages **50c.**

Kendall's Horse Book.—No book could be more useful to horse owners. It has 35 engravings illustrating positions of sick horses. and treats all diseases in a plain and comprehensive manner. It has recipes, a table of doses, and much valuable horse information. Paper, **25c.**

Ropp's Easy Calculator.—These are handy tables for all kinds of merchandise and interest. It is really a lightning calculator, well bound, with slate and pocket. Cloth, **$1.**; Morocco, **$1.50.**

Chicken Cholera, by A. J. Hill,—A treatise on its cause, symptoms and cure. Price, **25c.**

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The work contains 1,016 pages, is a veritable Treasury of Useful Knowledge, and worth its weight in gold to any Mechanic, Business Man, or Farmer. Price, postage paid, **$2.50.**

OLDEST BEE PAPER IN AMERICA

THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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The Honey Product of 1881.

We have great pleasure in presenting to our readers a very interesting Table concerning the Honey Product of 1881. It is very valuable, and will be exceedingly useful for reference. It has entailed upon us much extra labor and study; but few can even imagine the amount of brain work expended upon such a table. It rolls up into the millions. We would thank those who have so kindly sent their reports, and thus gave us the material with which to make the figures.

The average amount of surplus taken from the hives during the past summer is about 69 pounds, and the increase is about 71 per cent. Some colonies have each given as much as 400 pounds of comb honey. These were very rare cases, and evidently had the most favorable conditions.

The increase varies all the way from 8 to 140 per cent. California shows 8 per cent. increase, while Dakota shows 130, and North Carolina 140, while New York and Kentucky each gave 72, Pennsylvania presents only 19. Michigan and Illinois each show 95, and Wisconsin 118. The curious may figure out many amusing results.

In the production of honey, New York takes the lead in quantity, followed by Pennsylvania, Canada, Ohio, Michigan, Wisconsin, Illinois and Louisiana, in the order named.

THE HONEY HARVEST OF THE YEAR 1881.

STATE.	No. of Colonies.		Per cent. Incr.	Extracted Honey.		Comb Honey.	Total Surplus Honey.	Ave. per Col'y
	In Spring	In Fall.		Light.	Dark.			
Alabama	989	1,568	58	43,876	......	3,240	47,116	48
Canada	12,251	23,432	91	894,502	4,511	274,612	1,173,625	96
California	480	520	08	30,168	......	....	30,168	63
Dakota	132	304	130	11,246	1,248	18,455	30,949	159
Florida	2,354	4,712	100	165,458	2,460	19,734	187,652	84
Georgia	2,480	3,648	49	89,450	......	42,875	132,325	53
Illinois	7,739	15,111	95	151,212	26,343	202,081	379,636	49
Indiana	2,861	5,934	107	95.792	13.514	55,063	164,369	57
Iowa	4,577	7,642	68	117,946	57,655	103,956	279,557	61
Kansas	1,624	1,946	20	41,876	3,841	40,846	86,563	53
Kentucky	6,106	10,515	72	168,627	540	54.215	223,382	37
Louisiana	3,234	4,530	40	300,641	14,246	2,456	317,343	98
Maine	460	986	115	4,246	564	15,862	20,672	47
Massachusetts	1.549	2,675	73	40,828	2,524	78,281	121,633	78
Maryland	925	1,365	46	15,131	1,464	16,217	32,812	36
Michigan	11.366	22,173	95	127,926	8,713	755,375	892,014	79
Minnesota	2,624	4,346	66	68,694	2,482	56,357	127,533	49
Mississippi	3,245	4,321	33	61,750	11,240	19,465	92,455	28
Missouri	3,642	5,487	51	22,655	12,350	56,644	91,649	25
Nebraska	416	652	57	4,825	1,264	2,686	8,775	21
New Hampshire	98	146	49	2,655	564	1,562	4,781	49
New Jersey	2,260	3,465	55	45,428	12,816	24.860	83,104	37
New York	25,366	43,593	72	501,892	143,436	1,183,705	1,829,033	72
North Carolina	31	74	140	850	......	1,456	2,306	74
Ohio	13,137	22,262	70	748,229	13,427	206,912	968,568	74
Pennsylvania	15,682	18,729	19	844,382	61,605	463,581	1,369,568	87
Tennessee	751	878	17	2,649	9,875	1,565	14,089	19
Texas	3,933	5,943	51	79,651	15,682	9,139	104,472	26
Vermont	416	679	55	4,681	1,856	27,158	33,695	76
Virginia	1,608	1,949	21	7,684	1,872	53,259	62,815	39
West Virginia	847	1,283	52	33,925	7,716	16,405	58,046	69
Wisconsin	4,423	9,642	118	217,351	97,142	182,424	496,917	112
	137,636	235,510	.71	4,946,226	530,950	3,990,446	9,467,622	69

Dakota gives 130 per cent. of increase, and an average of 159 lbs. per colony in the spring, but more reports would, in all probabilty, greatly modify this result. New York shows a production of over a million pounds of comb honey, and is followed by other States in the following order: Michigan, Pennsylvania, Canada, Ohio, Illinois, Wisconsin and Iowa.

For several years past the crop has averaged only 35 lbs. to the colony, but this year we have nearly double (69 lbs.), so that those who lost ½ of their bees last winter, still have as much honey as usual from the half that remained last spring.

The 43 persons named below, commenced the season with 2,579 weak colonies. These have increased to more than double the original number, and have given 182,243 lbs. of extracted honey, and 95,144 lbs. of comb honey as surplus, besides leaving 100,000 lbs. in the 5.209 hives for winter use.

The average per hive, of honey produced is about 138 lbs., and the fall crop will bring this to over 150 lbs. per colony. The amount taken from each hive averaging 107½ lbs. to every colony in the spring. Several of the colonies counted in the spring were devoted to queen rearing, and of course gave no surplus. Here are the exact figures:

Name of Producer and State.	Colonies in Spring	Colonies in Fall.	Pounds Extrac'd Honey.	Pounds Comb Honey.
D. A. Jones, Canada	200	1,000	31,700	400
Alderman & Robt., Fla.	250	330	10,360	1,850
B. F. Pratt, Illinois	24	44	3,000	100
Dr. C. C. Miller, Illinois	67	179	1,316	6,488
V. W. Keeney, Illinois	19	40	1,200	1,100
J. L. Anderson, Illinois	14	34	......	1,000
J. Doyle, Illinois	22	37	......	1,500
A. H. Baker, Illinois	30	45	2,500	......
L. H. Scudder, Illinois	15	40	......	1,000
H. S. Hackman, Illinois	10	71	1,000	200
T. S. Bull, Indiana	140	230	8,150	700
J. S. Ballinger, Indiana	13	34	1,700	.....
O. O. Poppleton, Iowa	108	131	14,400	325
A. Carder, Kentucky	28	38	2,500	.....
L. Lindsly, Lousiana	300	400	26,500	1,000
W. A. Towle, Michigan	31	50	250	2,214
G. Lamoreaux, New York	18	50	625	1,695
Hattie A. Heaton, N. Y.	37	54	60	3,700
W. D. Wright, New York	140	210	......	14,000
N. Bailey, New York	12	24	......	1,100
W. L. Coggshall, N. Y.	108	208	15,100	4,500
W. S. Ward, New York	72	120	700	6,500
R. Bacon, New York	70	120	400	5,500
M. A. Williams & Co., N. Y	53	89	4,200	851
C. M. Woolver, N. Y.	73	150	5,700	800
Jas. Markle, New York	83	115	10,850	800
Wm. P. Makley, N. Y.	92	126	7,500	500
G. H. Adams, New York	30	107	1,000	2,000
G. M. Doolittle, N. Y.	30	80	700	3,200
C. J. Van Eaton, N. Y.	41	125	400	5,000
Greiner Bros., New York	70	140	......	9,100
P. A. Reigle, Ohio	2	15	362	201
L. D. Ormsby, Ohio	30	54	700	1,800
Smith & Smith, Ohio	30	70	......	2,500
B. F. Carroll, Ohio	20	56	1,500	200
Wm. Bitzer, W. Virginia	42	58	2,785	1,300
H. Feathers, Wisconsin	35	81	100	3,200
James Nipe, Wisconsin	24	49	5,300	400
H. Newhaus, Wisconsin	25	92	3,107	2,027
C. A. Hatch, Wisconsin	42	85	5,000	893
Smith & Hatch, Wisconsin	43	63	5,000	.....
B. F. Davenport, Wis.	55	92	100	5,400
M. Blanchard, Wisconsin	31	73	6,500	100
	2,579	5,209	182,243	95,144

There are in America about 3,000,000 colonies of bees, but our reports are from less than a quarter of a million, or one-twelfth of the whole. If the one-twelfth that are reported are a fair average of the whole, then the crop of American honey for 1881 amounts to 120,000,000 of pounds. If we call it only a hundred millions, it is worth $1,500,000,000. Surely the industry is of sufficient magnitude to satisfy the most enthusiastic of its devotees.

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The National Convention.

We devote much of our space this week to the first instalment of the proceedings of the National Convention, held last week. The Convention embraced much talent, and its deliberations were marked with dignity and harmony, and will be productive of much good.

Prominent among those in attendance were: Prof. A. J. Cook and T. F. Bingham, Mich.; Hon. W. H. Andrews, Texas; G. W. Baker and A. W. Windhorst, Mo.; Geo. A. Vincent, La.; Dr. J. P. H. Brown and lady, Ga.; Mrs. L. Harrison, Ill.; Mrs. F. Dunham, Wis.; F. Della Torre, Md.; D. A. Jones, Ontario; Nelson Perkins, Ala.; D. S. England, Tenn.; O. O. Poppleton, Iowa, Dr. E. Parmly, N. Y., and a host of Kentuckians.

Much of the success of the Convention is due to the unceasing labors of Mr. and Mrs. William Williamson, and Mr. J. R. Williamson, whose unbounded hospitality will not soon be forgotten. That they may prosper as they deserve, is the wish of all with whom they came in contact.

* * *

☞ A mild winter, says the Cincinnati *Commercial*, is predicted by meteorologists. As the excessive heat of this summer is attributed to the increase of solar radiation, and that increase is due to violent disturbances in the sun's cromosphere, where spots of vast magnitude, following a period of quiescence, began to show themselves in May and have continued since, it is argued that the temperature in Arctic latitudes is, and will continue to be, above the average, and that comparatively mild currents of air will be wafted down upon us during the winter months.

* * *

☞ We regret to announce that Signor Lucio Paglia, an extensive breeder of Italian bees, who has exported many of them to other countries of Europe as well as to America, died at Gaiana, of an affection of the lungs, on the morning of Sept. 15, 1881.

CONVENTION NOTES

TWELFTH CONVENTION

OF THE

North American Bee Keepers' Society

HELD IN THE

Odd Fellows' Temple, Lexington, Ky.,

COMMENCING ON

WEDNESDAY, OCTOBER 5, 1881.

President N. P. Allen called the Convention to order at 10 o'clock.

C. C. Coffinberry, of Chicago, Ill., was appointed Recording Secretary *pro tem.*

On motion, the reading of minutes of last Annual Convention was deferred till the arrival of Dr. Parmly, of New York, Recording Secretary.

An amusing communication from B. Hix, Holly, Mich., was read.

Calling the roll of members and reading the Treasurer's report were deferred.

Vice Presidents' reports being in order, the following were received:

Tennessee.—Vice President S. C. Dodge reports the winter of 1880-81, was one of unusual severity; the spring opened fine but late; bees were too weak to take advantage of nectar flow from fruit trees, white clover and tulip trees; my average being about 25 pounds of honey from spring bloom. The summer was dry and forage very poor. Colonies robbed late in spring scarcely recovered in time for fall bloom. Now breeding rapidly from fall honey. Honey is now coming in nicely. I expect an average of 30 pounds of fall honey per colony. I have effectually eradicated foul-brood from my apiary; and after disinfecting them am again using the hives and frames.

Arkansas.—Vice President W. W. Hipolite, M. D., reports only about 25 pounds per colony, owing to the prolonged drouth; increase was moderate; bees are in good condition. Instead of organizing State and district associations, I have made formal application to have the bee-keepers in this State incorporated with the Arkansas State Horticultural Society for the time being, and have no doubt that the request will be granted. With some slight changes, our State Fair Association will continue the premium list which they last year offered for bees, honey, etc. The fair will be held from the 17th to the 22d of October. As bee-culture becomes better developed in this State, I think there will be little difficulty in getting an offer of larger premiums. I trust your meeting may be one of harmony, and result in great good.

Indiana.—Vice President Rev. M. Mahin reports the winter of 1880-81 was one of the most disastrous to the bee-keeping interest since I have been a keeper of bees. In all parts of the State the losses were very great, and in some counties almost total. For some reason which I am not able to explain, the mortality was greater in the Southern portion of the State than in the more Northern. I am not able to give with any certainty the percentage of loss, but I judge for the whole State it was not less than three-fourths. Many lost all they had. In the Northern half of the State the season has been very good. I have never before known basswood to yield so abundantly. The swarming fever ran very high, and those who were wise enough to save and use the combs of the bees that died, or to use comb foundation, have had a very satisfactory increase. In this, the northern central portion of the State, the generally prevalent drouth did little harm, and our bees have gathered honey all the season. The fall crop is light, but the early crop was so very large that we have abundant reason to be satisfied. In Southern Indiana the drouth has been very severe, and I suppose that the bees are not in good condtion for winter. In this portion of the State there is great room for improvement in bee-culture. So far as I know, I have the only honey extractor in this county, and good movable-comb hives are scarce. Bee-keeping has been damaged by vendors of patent bee hives, the patented features of which are their worst ones.

Georgia.—Vice President Dr. J. P. H. Brown reports that as there are no regular statistics kept by the Agricultural Bureau of Georgia of the number of colonies of bees, and of the amount of honey and wax produced, it is very difficult to arrive at any very accurate results. I can only give approximate estimates based upon the last report of the Commissioner of Agriculture upon the subject. I place the number of colonies at about 7,000, and the honey product at 144,000 pounds, which would only be 20 lbs. per colony. The season has been favorable for the flow of honey, and above an average. The most abundant yield was in May, after this the drouth set in which checked the flow until the rains in July. The fall harvest bids fair to be good, and all those colonies that are strong will lay up surplus above their winter supplies. I estimate the amount of beeswax at 8,000 pounds. Fully 80 per cent. of the bees are kept in the old-fashioned box-hives. Movable-frame hives are gradually coming into use, and will be more extensively used as correct apiarian knowledge is more disseminated.

Kentucky.—Vice President Wm. Williamson reports the losses the past winter in Kentucky at fully 50 per cent.; some appear to have been more successful than others, and it does not appear to have been from lack of scientific treatment, because those who have the least experience, or given the least attention to them, have in some instances been most successful. The long-continued drouth of this summer destroyed the bright prospects of the early honey season. The flow of honey for a week or two was abundant, rich, and of delicious flavor, and for the number of colonies would yield about 75 per cent. The increase in colonies has been fully 100 per cent. The prospects for next season seem to indicate a bright future. The recent rains have refreshed vegetation so much that bees are again gathering honey, and will go into winter-quarters well supplied.

Canada.—Vice President D. A. Jones reports the present season as an average one for both honey and increase, and although it has been very dry since July, completely cutting off the fall honey yield, bees are in fair condition for wintering. Honey sells readily at fair prices, and the outlook for bee-keepers was never brighter in Canada than at present.

Nebraska.—Vice President Geo. M. Hawley reports the losses from outdoor wintering at fully 75 per eent.; the losses from cellar wintering 10 per cent. The early season proved favorable, and bees increased rapidly. Later, some sections were affected with local drouths, and but little surplus was obtained, while other portions will secure a full harvest. Should estimate the crop of the State at ¾ of a full yield. Our principal yield of honey has been from Polygonum persicaræ (hearts ease), goldenrods and silkweed. In the vicinity of rivers or creeks much other bloom has aided, but the former are everywhere present. The quality of the honey is good, and bees are generally in good condition for winter.

Alabama.—Vice President James A. Austin reports: I have endeavored to find out all I could in regard to honey and bees in this State. I think I can safely say there are not more than 200 or 300 colonies in Madison county. There is very little interest manifested in the State. I am sorry I cannot be with you at the Convention, and hope it will prove a successful one.

Maryland.—Vice President S. Valentine reports: I regret I have not been able to get the statistics of the State of Maryland. As far as I can learn, I cannot report much over half a crop of honey, if any, for the State of Maryland for 1881. Owing to the mortality among the bees last winter, and the irregular flow of honey this season, it is impossible even to approximate an estimate of the honey crop of our State. I learn from various correspondents in different localities, that the flow of honey has been very irregular through the State—some sections very good while others are poor. I am of the opinion that the clover all through the season secreted an abundance of honey, throughout the State, and the failure in the different localities was owing to the prevalence of heavy rains in the early part of the season, which washed the honey from the blossoms. Following are statistics for Carroll county for 1879: Honey, 13,977 pounds and wax, 455 pounds. Taking Carroll as an average, would give the State of Maryland 307,497 pounds of honey and 10,010 pounds of wax for 1879. I trust your Convention may be a grand success.

Kansas.—Vice President Norton reports there is no surplus in Kansas, unless it be in the Eastern tiers of counties along the Missouri river. Any surplus in his locality is usually from the fall flowers, which the drouth has prevented for this season. It seems to me a printed circular, setting forth the objects of the Society, for distribution by the Vice Presidents among the officers of the various Fair Associations, would be the most practical and effective manner of reaching the intended objects and producing an effect. It should be an able production, giving statistics of the production of honey, and its importance to the country in a commercial view, with reasons why that production should be stimulated and encouraged by the offering of liberal premiums by the several Fair associations of the country. I would suggest that Mr. T. G. Newman be requested to write it. He could certainly afford it, as the extension of scientific bee-culture tends to increase the circulation of the BEE JOURNAL. Since my residence here, now four years, the JOURNAL has quite a good circulation, whereas, before I came, not a copy came to the county so far as I know. I wish the Society a successful and profitable meeting.

The reports were accepted and ordered to be placed on file.

On motion, the reception of the President's annual address was postponed till the afternoon session.

On motion, adjourned till 2 p. m.

AFTERNOON SESSION.

The President, Dr. N. P. Allen, of Smith's Grove, Ky., addressed the Convention as follows:

Ladies and Gentlemen:

In obedience to a time-honored custom, I am before you to deliver the opening address as presiding officer.

Another year of labor and toil, of joys and sorrows, of successes and disappointments, has passed since we last met in council and grasped each others' hands, and with sympathetic hearts enjoyed the social greetings of our co-laborers in the broad field of apiculture. We have great reason to be thankful to Him who presides over the universe, the dispenser of all blessings, that our lives are spared and we are so favorably surrounded.

The past winter was marked by extreme long-continued cold, and thousands of colonies of bees were lost in consequence; not only bees died, but animals perished in many parts of our northern latitudes; nor was man altogether exempt from suffering and death caused by the rigorous weather.

But in due time the spring sun poured its life-giving rays upon the earth, melting away the snow and frost. The trees put forth their leaves, the grass shot forth its delicate spears and covered the earth with living green; the flowers opened and filled the air with sweet fragrance, and all nature seemed glad with joy, while the hum of the busy bee was heard in the land, filling the heart of the bee-keeper with delight as he beheld the lovely sight.

But the spring-time and summer have passed and the harvest is ended, and we are here to recount our successes and failures—to learn one from another.

Life is made up of toil and labor, of pleasures and sorrows, hopes and fears, happy realizations and sad disappointments—not more so with the apiarist than with other pursuits; yet, he has a fair field in which he can experience all these different phases of life.

The object of this Association should be to disseminate a correct knowledge of rational bee-keeping; to bind the brotherhood of bee-keepers together as with cords of love and fraternal feeling; to do all in their power to develop the honey resources of the country; to let their light shine so that ignorance and superstition may be dispelled from the land, and a correct system of cultivating the honey bee be the order of the day, that all who keep bees may be rewarded for their labor, and by studying the works of nature in the economy of the bee hive, be elevated in their minds from nature's works to nature's God, and thus be made better citizens and better Christians.

I had hoped to have a valuable statistical table from every State and Province; but from causes over which I had no control I am not able to present it.

Many and varied are the reports of the honey crop. In some States and localities the winter's disasters and the summer's drouth have been so severe as to almost ruin bee-keeping as a profitable business, while in other States and localities bees wintered without serious loss, and the spring and summer harvests were such that good crops of honey were gathered; and in favored spots large yields of honey are reported. May we not hope for a favorable winter, and a rich harvest for our bees the coming year?

Since the invention of the movable frame, by our illustrious co-laborer, the Rev. L. L. Laugstroth, in 1855, scientific bee-keeping has been on the increase, and the command of God to man to go forth and subdue the earth, is the watchword among bee-keepers—as the movable frame gives him control of the labors of the honey bee in comb-building, brood-rearing and honey-gathering. The intelligent bee-keeper directs the labors of his bees as he chooses. If he wants the delicate comb honey, as white as snow, he can have it by the use of honey boxes and sections; if he wants the pure liquid nectar just gathered from the delicate flower cups, with the sweet fragrance and rich aroma of the flowers from which it was gathered, he can obtain it by the use of the honey extractor. If he wishes to increase the number of colonies, he can do it by artificial swarming and the use of comb foundation. The bellows smoker enables us to subdue and control our bees while manipulating them.

The new races of bees that have been introduced have done much to further the cause of scientific bee-culture. All of the different races are here on exhibition, and we may learn much of their relative merits. We have the German or black bee, the graceful Italian with her rings of gold, and the albino, so light and beautiful. The Cyprian and Syrian bees that have recently been introduced from the Island of Cyprus and from Palestine are also on exhibition. We had hoped to have *Apis dorsata* also, but have not.

I would earnestly recommend for your consideration, the importance of encouraging State, District or County Societies; the State or Province Societies should be auxiliary to the North American, and the District or County to the State or Province.

Much has been said and written on the subject of the adulteration of honey, and the making of laws to prohibit it. I believe that all articles of food and medicine should be sold under their proper names, and as honey is used both as food and medicine, I recommend that you take such action as in your wisdom may seem best to bring about the end desired.

Several valuable inventions in useful tools and implements have been made the past year, and quite an advance in our bee papers and literature is to be seen—new ones being issued, older ones enlarged and made more attractive. The AMERICAN BEE JOURNAL, published by Thos. G. Newman, Chicago, Ill., is now printed weekly, and is the only weekly paper in the world devoted exclusively to bees.

I return thanks to all the bee papers for publishing the notice of this meeting; also to the committee of arrangements, for their labors in getting the use of this hall to hold our sessions in, and for obtaining hotel and railroad rates.

A programme has been printed and distributed for use at this meeting; I return my thanks to all those who have contributed to its interest.

In conclusion, allow me to thank you for the honor of presiding over your Association the past year. I have spent both time and labor in furthering its interests, with the hope that it would prosper under my administration, and that this meeting would be the best ever held in the Western World. May your deliberations be pleasant and profitable to all present.

Dr. E. Parmly, of New York, Recording Secretary, having resumed his official duties, read the minutes of the last annual Convention, which were approved.

The selection of a committee on nominations being in order, O. O. Poppleton, Iowa, moved that the President appoint the committee. Carried.

President Allen appointed as said committee*:* Hon. W. H. Andrews, McKinney, Texas; Hon. G. W. Demaree, Christiansburg, Ky.: O. O. Poppleton, Williamstown, Iowa; F. Della Torre, Reisterstown, Md.; and Dr. J. P. H. Brown, Augusta, Ga.

Prof. A. J. Cook, of Lansing, Mich., delivered the following able address:

The New Races of Bees.

A little less than two years since, as is well known to all, two American gentlemen D. A. Jones, of Canada, and Frank Benton, of Michigan, started for the old world in quest of new races and species of bees. in the hope that they might discover and introduce into America some new and valuable races or species. After visiting the principal apiaries of Europe, they located in Cyprus, where they established a large apiary in the city of Larnaca. Mr. Benton remained in Cyprus in charge of the bees, which consisted of two distinct varieties, the Cyprian and the Syrian, while Mr. Jones returned to America in June, 1880, bringing a large number of the queens of the two races with him.

The following winter Mr. Benton proceeded to Ceylon and Java, hoping to find "the great bee of Java," Apis dorsata, and perhaps others that were valuable. His quest on the Island of Java was very thorough, but utterly fruitless. No sign could he see or word could he hear of the great "Javan bee," Apis dorsata. It was not there, and Mr. Benton gained the expensive information that the name Java, as applied to this species, was a serious misnomer. His search in Ceylon, however, was better rewarded, as he procured on this island, after severe labor, great privation, and serious hardships, which came near costing him his life, two new species of Apis; the large dorsata which fastens its immense combs, all exposed, to the underside of the branches of trees; and the minute florea, which nests in the hollows of trees and rocks, as do our common bees. The comb of Apis dorsata is very thick and heavy, while that of A. florea, some of which I have received through the kindness of Mr. Benton, is very delicate and beautiful. The cells are ⅛ less in diameter than are those of our common bees.

Upon the arrival of the new queens in America, I at once procured one of the Syrians, and Syrianized the entire apiary at the Michigan Agricultural College, as I then could learn their peculiarities with much more certainty than though I kept several races.

As the Syrian is the only one of the new races and species with which I have had personal knowledge, I will confine the balance of this paper to them, reserving the description of the other species and race for a future occasion.

The Syrian bees are of the yellow type, and so are closely related to the Italians. Indeed, there are reasons to believe that these latter bees are the modified offspring of the Cyprians, which as probably were the descendants of the Syrians.

The queens of this race are remarkably uniform in coloration, and thus appear more fixed as a variety, than do the Italians, whose queens are quite variable in color. This uniformity is so striking that of 20 Syrian queens which I have reared, it is next to impossible to distinguish one from another. The head, thorax, femora, and bands on the dorsal surface of the abdomen are black. The abdomen above is brown or leather-color, while the legs, except the femora, and the under side of the abdomen are a little lighter. The black bands on the back border posteriorly the segments from the 2d to the 5th inclusive. They broaden from before back to the last, which nearly covers the 5th segment. The 2d and 3d bands are a little broadest in the middle, and the last segment is wholly black. In form the Syrian queens are essentially like the Italians, nor do they differ in size.

The drones are black above and yellowish-brown beneath. The legs are black. Each segment of the abdomen is bordered above posteriorly with golden brown. Olive brown hairs cover the thorax above, while beneath the thorax on the under side of the head, and at the base and tip of the abdomen, the hairs are of a lighter hue. These drones are also unlike the Italian drones in their wondrous uniformity. Each seems exactly like every other. The Syrian and Italian drones do not differ in form and size. In breeding these bees, I have had striking proof that impregnation has no effect to modify the drones. The first 4 queens that I reared must have mated with Italian drones, as there were no others in the apiary, and no Syrian drones in the State. Yet of a great number of drones from these queens, not one was seen that did not show the marks of a pure Syrian in every respect.

The Syrian workers are like those of the Italians, except that they are more yellow beneath; this color prevailing to the last segment which is dark. The young Syrians, just as they come from the cells, appear very dark. This peculiarity furnishes the readiest means by which to identify these bees when there are no drones in the hive. The workers are a little brighter than are the Italian workers, and perhaps a trifle smaller. The tongue of the Syrian worker, I find, after examining a large number of each kind, to be the same length as that of the Cyprian, and to average .006 of an inch longer than that of the Italian, and more than .02 an inch longer than the tongue of the German worker.

I have found the Cyprian bees to be very prolific, and persistently so. Autumn frost or summer dearth of honey secretion does not check brood rearing as is the case with the Germans or Italians. This does away with all need of stimulative feeding, and keeps the colonies strong at all times. Young bees are present at dawn of winter, which is an important adjunct in safe wintering, and a safeguard against spring dwindling. The Syrians are excellent honey gatherers, certainly equal, if not superior to the Italians. They are even more sure to repel robbers than are the Italian bees.

Some of the characteristics of the Syrians are not so desirable. They fairly crowd the queen cells when preparing to swarm. Sometimes 5 or 6 queen cells will be massed in one great pyramid; so it is often difficult to separate them without ruining large fine cells. The speedy destruction of the remaining queen cells after the first queen comes from the cell, and the quick appearance of fertile workers in queenless colonies and nuclei, are objectionable features. These bees are more irritable than are Italians, and worst of all when once aroused, they are totally indifferent to smoke and fight on all undismayed, even in the presence of the best Bingham smoker. This objection is not very serious, however. The bees are breeding at all times, and so are almost always peacable, so much so, that I have handled them now for a year, without gloves, veil or smoke, and with no fear or annoyance, except in case of colonies or nuclei which had no queens. Queenless colonies are often very irritable. By waiting a little after opening the hive we are safer, but even then it is not always agreeable to handle them without full protection. Fortunately it is not necessary to handle them much at such times. It is much easier to protect fully these few times, than to have to use the smoker most of the year. After a year's experience, I can give hearty praise to these bees, which are certainly a most valuable acquisition to American apiculture.

Rev. L. Johnson, of Wallon, Ky., thought orders for Cyprian and Syrian queens should be sent to Mr. Jones, in order to remunerate him in part for his outlay of time and money to secure a superior and pure race of bees for dissemination in this country. The bees mentioned are good natured if properly handled.

Prof. Cook thought a substantial recognition of Messrs. Jones and Benton's arduous and hazardous labors in this behalf should be made by the bee-keepers of North America.

G. W. Demaree, Christiansburg, Ky., was satisfied that there are two races of bees—the yellow and black. All the races of yellow bees are undoubtedly derived from the same parent stock, and all variations which are apparent are the result of climatic influences. Mr. Demaree said he had better results in rearing queens from fresh eggs than from larvæ. He found, where giving larvæ already hatched from which to rear queens, the queens are always darker and their workers not so fine.

D. A. Jones, was of the opinion there were but two races originally—the Syrian and the Dalmatian bees. He thinks the Syrian bees were taken to Cyprus from Palestine, and from Cyprus to Italy, where they came in contact with the Dalmatians, and by acclimatization they formed the present Italian bees, which have become a fixed race. He has known nearly 250 queen-cells to be constructed in one hive by the Cyprians. A neighbor in Canada claims that the Cyprians gathered an average of 20 pounds more honey per colony than the Italians did.

C. C. Coffinberry, Chicago, Ill., read a paper on the subject, "Can we make honey a staple product." as follows:

Can Honey be made a Staple Product?

Since bee-keeping has emerged from the mysterious labyrinths of superstition which popularly surrounded it and been allotted a high position among the scientific arts, the great obstacle which, till quite recently, attended its successful pursuit and development has been an outlet or market for the surplus production above the quantity actually required for home consumption.

This, however, having been overcome, the next serious question which arose in the minds of some of our most successful producers was the fear of glutting the market; but thanks to an intelligence which could comprehend a country and a market as great as our own, this fear has been allayed, and a demand has sprung up abroad which we frankly acknowledge we cannot satisfy, until we can make honey a staple production. By "staple production," I mean when its supply will average, one year with another, as will pork, or beef, or butter, or cheese, or wheat, or corn, or any other product that is dependent alike upon the seasons and the intelligence of the producers.

Contemporaneous with the fear of glutting the market, was broached the bugbear of over-stocking the country with bees, and many intelligent and deeply interested bee-keepers approached the subject with fear and trembling, while a few proved by actual figures that two or three hundred colonies of bees did not gather as much honey per colony as formerly did their half-dozen or less colonies. Last winter, however, done much to remove their fears of over-stocking; in fact, one advertised this spring to buy or run on shares bees with which to continue his over-stocking process.

The all-important questions now arising are, Can honey be made a staple product? and if so, How? If we were to ask an intelligent pork-raiser where he expected his hogs to find mast enough to fatten on, he would smile at our simplicity, and point to his well tilled fields where he raised the corn to feed them; ask the dairyman how he expects the best results from his cows in butter and cheese, and he will point to his ample pastures and haystacks; inquire of the wheat-grower where he finds so much wheat to cut, and he will with pride show you his broad fields; but the average bee-keeper if asked where his bees get the nectar with which to fill their surplus boxes, will with a smile of satisfaction point to the roadside where abounds what of the clover the hogs have not uprooted, or to the linden grove in somebody's wood-lot, or to some slovenly field where Spanish-needles have taken possession, or "over yonder is a marsh with lots of smart weed." But he has never planted an acre for his bees, "because it will not pay." Perhaps, once in a while, some neighbor has put in a field of buckwheat, or nature has been lavish, and the bees, true to instinct, have done well—as they always will if the opportunity is provided them.

But Mr. O. O. Poppleton, of Iowa, can tell you truthfully that his bees average, per colony, the product of an acre of wheat; Greiner Brothers, of Naples, N. Y., realized equivalent to two acres of wheat from each colony; Alderman & Roberts, Wewahitchka, Fla., have realized this season enough to purchase an acre of land for each colony. Many others have done quite as well; and why? Because they have had almost continual bloom.

It is not my intention to suggest what to plant, but to provoke the questions: Should we not plant to secure a continuous bloom? and with a continuous bloom of judiciously selected plants, Can we not make honey a staple product? When every year becomes an extra good honey season, instead of every fifth year, will not honey have become a staple product? If thirty days of good honey flow will constitute the average honey season one with another, will not four times that number of days every season (which I believe can be realized by judicious planting), not only make the product a staple one, but apiculture will become one of the most pleasant, most certain, and most profitable pursuits we can adopt.

When we have learned what to plant, when to plant, and how much to plant, then, too, will we have overcome the greatest difficulty in wintering, and we will hear no more of bees starving. Our honey will always be the best, because we have robbed nature of the privilege of making the selection. Our colonies will always be strong, from early spring till late in the fall, for we have allowed no cessation in honey flow. Our ramifications for newer and better bees will cease, for our beautiful American-Italians will only be forced to "jump over the fence and help themselves;" and our hybrids and blacks will become morally and socially better, because not forced from infancy to steal their living. Then, too, will prices become as staple as the product, and the apiarist can with some certainty figure up his probable profits; a few days of adverse winds will not ruin a season's prospects, and bee-keepers will expunge from their vocabulary the dismal term, "blasted hopes."

T. F. Bingham, Abronia, Mich., inquired of Mr. Coffinberry how much buckwheat would be required for a given number of colonies?

O. O. Poppleton, Iowa, answered the question by stating that last season 25 acres of buckwheat gave his bees 6,000 pounds of buckwheat, and he does not know how much was lost, because of inability of bees to take care of or gather it.

Prof. Cook said that the subject matter of the paper was of the greatest importance to the bee-keeper, as it touched on all the vital points connected with successful apiculture; he had no doubt the honey season could be very greatly lengthened, and the crop increased almost indefinitely by a judicious system of planting. He hoped every bee-keeper in America would give the matter of planting for honey a generous trial.

On motion, the President appointed the following gentlemen as a committee on apiarian supplies, queens, bees, etc.: Dr. L. E. Brown, Eminence, Ky.; D. A. Jones, Beeton, Ont.; and D. S. England, Sparta, Tenn.

The following communication was read from Henry L. Jeffrey, Vice President for Connecticut:

Report from Sept. 1st, 1880, up to date.

The honey yield from fall flowers in 1880 was below the average as a crop, and consequently the condition of colonies for winter, in the majority of cases, was a scant supply of honey. The pollen yield was as much in excess as the honey was deficient, and in many places the pollen yield was the heaviest ever known.

Winter came suddenly upon us, about Nov. 23, and held severe until Dec. 15, when the bees that were in sheltered localities flew a little for two or three days and were then shut in until the fore part of March, when they had another fly for a day or two, then, having only an occasional fly until May, when they began to work in earnest every pleasant day, carrying in pollen, and the bees decreased in a greater proportion, by the old ones wearing out, than the hatching brood could replace, thus leaving the colonies on the average no stronger than they usually were the fore part of April.

About 65 per cent. of the number of colonies of last fall were dead by May 10, and more of them died between Mar. 20 and May 10 than had previously. Many that had pulled through till May 1, became queenless and died out or swarmed out, or had drone-laying or virgin queens before June 1.

Both soft and hard maples were full 3 weeks later than known before in these parts, but most of the bees were in condition to obtain but little honey from either. Fruit bloom was nothing to speak of. May 25, white clover began to show considerably in favorable localities, but yielded very little honey. Very little, if any, surplus was stored in boxes till basswood, which commenced blooming July 13, the bloom being plenty and yielding bountifully till the 28th; before basswood was gone, sumac began to bloom abundantly, and yielding honey steadily and bountifully till Aug. 5, when the harvest shut off so abruptily as to make it dangerous to open weak colonies or nuclei until buckwheat began to bloom, which was Aug. 22, in some places yielding a fair supply, in others scarcely enough to keep off starvation, and in many places not any. When any amount of honey was gathered it was from the silverhull, the common kind was worthless for honey. The early golden-rods and other early fall flowers amounted to nothing for honey; on the 20th of Sept. bees began to gather a little honey, and the yield showed a steady increase daily. On the 24th it was so heavy that should it continue for 2 weeks as plentiful, the colonies completely destitute could gather enough for a winter supply. The queens had almost come to a stand-still regarding laying, but the past 3 or 4 days, good flow of honey has given them a start, which it is to be hoped will furnish brood enough to send them into winter quarters moderately strong in bees.

In the north-western and western parts of the State, there is a slight showing of a disease in the brood. Just before ready to cap, a large percentage of it turns a yellowish brown, and then dries up. Whether it is caused by a poisonous honey, or the weather, or the drouth, or all three, I cannot tell. The trouble is mostly on low ground or near large swamps. It is contagious by the interchange of diseased combs.

The honey season has not been more than a medium for surplus, though in some places it was uncommon for swarms.

Woodbury, Conn., Sept. 26, 1881.

On motion, adjourned till 7:30 p. m.

EVENING SESSION.

Reports on the crop results for the season, with amount of increase, being in order, were given as follows: No. of colonies in the spring, 1,499, increased to 2,700; extracted honey received, 67,632 pounds; comb honey received, 5,005 pounds.

Many of those reporting as above stated their bees were in bad condition in the spring, and others had run for queens or increase. When the roll was called several were absent, not having returned from supper.

Prof. Cook made an explanation regarding fertilization in confinement; he has never been successful in his attempts to accomplish it, although he has diligently tried almost everything which suggested itself to his mind.

Mr. Demaree has tried several experiments, and almost lost confidence in its accomplishment. He has tried tying a silken thread around the queen and flown her in the air, but with no satisfactory results.

Prof. Cook has also tried that method, and suggested several other experiments which met with no better success.

Several gentlemen expressed the opinion that the queen and drone dropped to the ground during intercourse, and gave instances which had come within their knowledge.

Dr. J. P. H. Brown differed with the gentlemen; he thought a few exceptional cases did not constitute the rule.

Mr. Jones has had a Syrian queen mated after she was 30 days old, and she commenced laying three days after being put in the hive. She has proven herself a good queen, being prolific and throwing worker brood.

On motion of Wm. Williamson, Lexington, Ky., Dr. J. P. H. Brown, Prof. Cook, G. W. Demaree, D. A. Jones and Prof. Hasbrouck, of New Jersey, were appointed a special committee, and requested to continue fur- experiments with a view to successfully fertilize queens in confinement.

D. A. Jones suggested that bees could be successfully and quickly united by using a small Bingham smoker with a piece of fine sponge next the fire grate, then another piece saturated with the best German chloroform, and a dry sponge on this. Care must be used, not to use too much chloroform.

Adjourned till 9 a. m.

MORNING SESSION—OCT. 6.

Session opened with prayer by Rev. L. Johnson, Walton, Ky.

Report of Committee on Nominations being called for Hon. W. H. Andrews, Chairman, reported the following:

President—Prof. A. J. Cook, Lansing, Mich.
Recording Sec.—Dr. Ehrick Parmly, New York.
Corresponding Sec.—C. F. Muth, Cincinnati, O.
Treasurer—Mrs. Frances Dunham, Depere, Wis.

STATE VICE PRESIDENTS.

Alabama—J. A. Austin, Huntsville.
Arkansas—Dr. W. W. Hipolite, Devall's Bluff.
California—W. Muth-Rasmussen, Independence.
Colorado—D. Wolpert, Denver.
Connecticut—H. L. Jeffrey, Woodbury.
Dakota—Calvin G. Shaw, Vermillion.
Florida—W. S. Hart, New Smyrna.
Georgia—Dr. J. P. H. Brown, Augusta.
Illinois—Mrs. L. Harrison, Peoria.
Indiana—Joseph M. Brooks, Columbus.
Iowa—O. O. Poppleton, Williamstown.
Kansas—D. P. Norton, Council Grove.
Kentucky—W. Williamson, Lexington.
Louisiana—G. A. Vincent, New Orleans.
Maine—Dr. J. A. Morton, Bethel.
Maryland—S. Valentine, Double Pipe Creek.
Massachusetts—E. A. Thomas, Coleraine.
Michigan—T. F. Bingham, Abronia.
Mississippi—O. M. Blanton, Greenville.
Missouri—R. S. Musser, St. Joseph.
Nebraska—George M. Hawley, Lincoln.
New Hampshire—J. L. Hubbard, Walpole.
New Jersey—Prof. J. Hasbrouck, Bound Brook.
New York—A. J. King, New York City.
North Carolina—E. E. Ewing, Highlands.
Ohio—Melville Hayes, Wilmington.
Ontario—D. A. Jones, Beeton.
Pennsylvania—W. J. Davis, Youngsville.
Quebec—Thomas Valiquet, St. Hilaire.
Tennessee—W. P. Henderson, Murfreesboro.
Texas—Dr. W. R. Howard, Kingston.
Vermont—A. E. Manum, Bristol.
Virginia—E. C. Jordan, Stephenson's Depot.
West Virginia—Dr. E. E. Worthen, Wheeling.
Wisconsin—John Corscot, Madison.

The report of the committee was accepted, and on motion of O. O. Poppleton, the Recording Secretary was instructed to cast the vote of the Convention as a unit for the above nominees, after which they were declared unanimously elected.

Prof. A. J. Cook, President elect, was escorted to the chair, and delivered the following:

President's Address.

Ladies and Gentlemen of the American Bee-Keepers' Society:

Allow me to thank you most cordially for this unsought and unexpected honor. To receive this kind and unanimous expression, is indeed most pleasant. Two years ago I urged Cincinnati as the place for the succeeding meeting. I wished to enlist the interest and quick intelligence, and secure the rich fruit of the experience of our honored bee-keepers of the Sunny South. One year later the selection of Lexington wisely furthered the same object. To-day we are proving the wisdom of this idea. We have heard before of the kind-heartedness and exceptional hospitality of the people of this grand old State. To-day we are realizing that it is more than true.

I have long felt a sincere pride in doing what I could to advance apiculture. The apiarist procures his reward, not by sharp practices, not through the misfortunes and adversity of his fellow, but by the honest production of that which is of value to others. His daily work adds to the capital of the world; the fruits of his daily thought and labor add to the comfort, the health, and the happiness of the world. More, when we lead any friend or neighbor to apicultural pursuits, we are working indirectly to cultivate in them thought, study and close observation, for without each and all of these, the best success is impossible. But intelligence and observation are more than elements of success; they make life a joy, and their possessor a delight and a blessing to others.

Apiculture calls its patrons to handle the things of nature, and so refines, elevates, and broadens. How patent the fact, as we associate with bee-keepers in these conventions, that this pursuit developes charity, reverence—yea, the truest and best elements of a gentleman.

In apiculture, our sisters find the means to procure a comfortable livelihood. That apiculture is peculiarly adapted to the deft manipulation and the neat and beautiful taste of our ladies, is more than demonstrated by the many successful lady apiarists of America, who are second to none in the land.

To be called to succeed such men as Allen, Newman, Quinby, and the honored Langstroth, is indeed something to awaken pride; to be called to represent the American apiculturists, as the chief officer of their national association, is indeed an honor of no small magnitude.

Asking your aid, unflagging support, and your kind forbearance, I promise to do what I can to make the coming year of this association even more fruitful of good to American bee-keepers, if that be possible, than has been any time of the past. With "Excelsior!" as our motto, let us proceed to our regular work.

The following resolution was offered by C. C. Coffinberry, of Illinois, and adopted unanimously, by a rising vote:

Resolved, That we hereby tender the thanks of the North American Bee-Keepers' Society, to our late President, Dr. N. P. Allen, Kentucky, for the excellent and efficient discharge of his official duties during the past most trying year to bee-keepers.

The following address from P. P. Collier, of Missouri, was read:

About in-and-in-Breeding.

In discussing this very important branch of apiculture, I deem it prudent to confine myself to facts long established and proven, that too long and too close "in-and-in-breeding" is determental in all domestic animals, as well as the honey bee. It is one of God's established laws in all animate beings to avoid the relative or kindred bloods, and the penalty in the violation of this law, the careful breeder is ever watchful to prevent in the species propagated. While it is a fact that some of the ancients advocated "in-breeding" to retain the original purity of the "bovine animals," yet the proof of this policy is developed in all cases wherever practiced, not only in maintaining the original, but running out of mixed bloods, and, while we believe that this law is applicable to all domestic animals, it is none the less true in the honey bee, as probably with all insects.

My father once purchased 4 colonies in log gums from two different men. For 2 years his increase was very rapid, his bees doing well, but the third year they became indolent—no honey—moths attacked them, and in 2 years more he had nothing left save the "gums." There were no other bees near for them to cross with, but they bred in-and-in until they bred "out." I was called, a few years ago, to transfer 18 black colonies from the old box to the movable frame hives. I did so, and found the bees very indolent; queens and drones dwarfish, bees idle with little resentment, and although put there in good order with a good harvest, yet they went to nothing. Another case about the same time, and under similar circumstances, was giving queens from a distant apiary (all blacks) with very different results; the close of the season found them strong and vigorous, not a moth about them.

Some 30 years ago, a French writer advocated the exchange of brood from a distant apiary, to prevent "in-breeding." Mr. Dadant, on page 270 in the AMERICAN BEE JOURNAL, refers to a case of marked laziness in bees propagated and sold in one locality, all from one colony. He further said, "According to my experience, too close and too prolonged in-and-in-breeding will produce laziness, and give birth to queens whose progeniters are not so sound as should be desired," and had he added that "such a course was a sure road to destruction," he would have come nearer the facts in the case.

I purchased, in 1877, a very fine imported queen from Dr. Brown, of Georgia. Her offspring was pure. I suppressed all drones except from her. From her I reared some very fine queens and drones, but to my surprise, these queens did not produce well-marked workers. The next year (1878), I reared some queens from these; the result was very bad hybrids, —very cross. The third year (1879), to my great satisfaction, as well as my neighbor's, they played entirely out—the worst mongrels imaginable. Now I had no black drones; all drones were from this imported queen and her offspring. I ask, "was this not a marked case of degeneracy from in-breeding?" I then procured queens from different breeders—reared drones from one, and queens from others, with very different results.

How did man obtain the perfection developed in the various animals under his control? I answer, by taking advantage of this law, with the variation and preserving them, or developing the more perfect, and rejecting the imperfect. Now with no variation, there can be no selection, but happily our great Creator has provided ample provisions by the which kindred blood, and the penalty thereof may be avoided, and a better and purer race adorn the many apiaries that exist in our broad and glorious land to the pleasure and profit of all concerned. But permit me here to say, that so long as this dollar-queen business is tolerated, so long may we expect perfection deferred, and a mongrel race flood our country. Why, what may we expect from a stock-raiser to advertise his fine cattle without warrant or guarantee of their purity? Would you purchase of such? Yet thousands of novices are led to believe that they have the "ne-plus-ultra," to their great injury.

Dr. E. Parmly, New York, maintained that there was not the danger to be apprehended from in-and-in-breeding, that was generally anticipated. The doctor exhibited a photograph of the most celebrated milch cow now in this country, stating that her extraordinary yielding powers had been developed by in-breeding, and that it was a rule among the best stock-breeders to breed in twice and out once; sometimes they breed in-and-out time about. He claimed that climatic influences had more to do with deleterious results than the system of in-breeding with bees. Take, for instance, the human family, and it would be found that some nationalities were not so liable to degeneracy as others. A nervous, excitable people like the Americans would be more likely to degenerate than a stolid phlegmatic people like the Hollanders. According to the theory of parthenogenesis, a queen could not mate with a full brother—the nearest relationship the drone could bear would be that of a half brother, and hence their peculiar natural organization was by nature adapted for breeding in.

An address from C. P. Dadant, of Hamilton, Ill., was next in order, entitled

The Prevention of Natural Swarming.

Among the most desirable improvements to be made in the wide unexplored field of bee-knowledge, is the management of bees in such a way as to produce at will, either bees or honey. One-half of this question has already been solved satisfactory, it is that which concerns the production of increase in colonies at the expense of honey. Indeed this matter has been so thoroughly ventilated, that it has become a necessity for the older heads to warn the novices against an excess in this line, and notwithstanding these warnings, we daily hear of failures of beginners due to the over-production of artificial swarms in their too great eagerness to quickly become large honey producers.

The other side of the question, and not the least important to the large producer, is far from being so thoroughly solved as the former, and although we see many instances where bees do produce honey without swarming, there are numberless instances where the bees have swarmed again and again, producing a large increase in spite of the efforts of their keeper, whose aim was only the production of honey. All our large producers are anxious to prevent natural swarming and to control all their increase in order to select their breeding stock, and also to prevent any further addition to the number of their colonies, except in a quantity sufficient to cover their winter losses.

In order to find the best means for the prevention of swarming it is necessary to consider the habits of the bee and to act in accordance with their nature. The oldest authorities that write on the subject all agree that bees swarm or prepare to swarm when "a hive well filled with comb can no longer accommodate its teeming population," and they also nearly all agree on the fact that when a colony has made preparations for swarming it is very difficult to prevent their swarming impulse. One thing however, that we do not find stated, though we may have overlooked it, is the fact that bees often prepare to swarm before the hive is full of comb, but only in exceptional cases when the comb in the hive is not yet all occupied. But there are, we think, several causes of natural swarming. Allow us to lay down a few rules which we will develop afterwards in regard to these causes. The swarming impulse is generally found:

1st. In a colony of bees that contains a large amount of drone comb, in which drones are reared early in the season.

2d. In a colony containing an old queen or a queen who is losing her prolificness on account of age or some other reason, and whom the bees try to replace.

3d. In a colony that has most or all of its comb occupied with honey, brood and pollen, even if that colony has a large empty space left.

4th. In some colonies that have already swarmed a few days previously, or in colonies that have prepared to swarm, even if the colony has been divided, when their intentions were discovered by their keeper.

Let us bear in mind that we must always have in view the nature of the bee, whenever we inquire into this question of swarming, as it is only through their natural instincts that we can control them.

In regard to the first question, nearly all the old box-hive bee-keepers will tell you that a colony that rears many drones is more apt to swarm than one that does not rear any. Bee-keepers however, differ in their explanation of the influence of the drones in this case. Some hold that when the bees intend to swarm, they rear drones largely, to provide for the fertilization of the young queen. Others say that drones are only reared in good seasons and that in such seasons the bees are more apt to swarm. We incline to think that although both of these reasons have weight in the matter, the main influence of the drones on swarming is due to the fact that they bother and annoy the bees with their useless presence, and help to make the colony uncomfortable by their running and tumbling right and left in the busiest time of the day, and especially by generating a considerable amount of heat, without ever helping even to ventilate the hive.

Be this as it may, we can safely say and our readers will agree in this, that to remove all or most of the drone comb to replace it with worker comb, is one of the requirements for the prevention of natural swarming.

The second question in regard to the age of the queen, will perhaps not seem so plain at first sight, and still we consider it as very important. Most bee-keepers know that when a queen loses some of her prolificness, the bees usually build queen-cells to replace her. They do not always wait till she is too old to be of further service, but sometimes try to replace her when she is still vigorous and only somewhat decreasing in her laying capacities.

In such instances if the young queen is reared during a scarcity of honey, they sometimes keep the two queens side by side for weeks and perhaps months, but when this queen-rearing is attempted during the honey months, it is an impetus to the swarming fever. The old queen then leaves with a swarm and this colony having acquired the swarming impulse will swarm again and again, sometimes to the bee-keeper's detriment and also to its own loss. On the other hand if the colony has a young prolific queen which they do not wish to replace, they will not build queen-cells unless other causes force them to it.

The third question is the main one in the case, and the cause of most of the swarming. Not only will a colony swarm when the hive is full of combs, but very often also when all the comb in the hive is full, even if the hive be only partly filled with comb. In this latter case, the cause is undoubtedly to be found in the fact that when the harvest is very plentiful the bees find every corner crowded and have to remain idle in order to digest the honey and transform it into comb. This is an annoyance to them undoubtedly, and they make preparations for swarming. But we have never seen bees swarm when enough empty comb had been provided for them from the beginning of the honey harvest, when the two first requirements had already been complied with. When the bees are allowed to acquire the swarming fever however, from some cause or other, we have never been able to find means to prevent their swarming, no matter how much room was given them and sometimes when divided up in 3 or 4 pieces each of these divisions would cast a swarm and make things only worse. It is, therefore, very important to have these rules complied with before the honey season begins.

For the last 15 years we have kept bees in large hives, larger than the average of bee-hives in the country, and we only had 5 per cent. of natural swarms, except in extraordinary swarming seasons, but until about 4 years ago, we had never furnished our bees with all the comb that they could possibly use in the best honey season. Since that time we have seen extraordinary swarming seasons, among our box-hive bee-keepers, the present season especially, having more than doubled their apiaries, and we have been enabled to keep the natural swarming to about 3 or 4 per cent.

Discussion helps progress. In the foregoing we only give our experience in the matter and now desire to hear of the experience of others. Such is the aim of this essay.

Hamilton, Ill.

Rev. L. Johnson, Kentucky, does not favor dividing or artificial swarming. When a colony develops a swarming tendency, he removes it to a new stand and places an empty hive on the old one, in which he puts a queen-cell or frame of eggs and larvae.

T. F. Bingham, Abronia, Mich., thinks the giving of empty combs will not prevent swarming—that the size of the hive has nothing to do with swarming.

C. F. Muth, Cincinnati, Ohio, thinks that swarming is easily controlled by extracting from the brood-chamber. In running for comb honey they cannot be so easily controlled at all times.

Rev. L. Johnson does not think the presence of drones has any influence on swarming.

Messrs. Muth and Cook agreed with Mr. Dadant in thinking that drones do exercise an influence.

H. C. Hersperger, Keene, Ky., has seen bees swarm under almost all circumstances; but thinks swarming is mostly attributable to the existence of uncomfortable conditions in the hive. At times, however, the swarming propensity seems almost unaccountable.

Prof. Cook explained his method of measuring the length of the tongue of the honey bee. It is done by placing feed on the surface of a pane of glass, then covering with a surface of wire-cloth, one end being elevated about one-half an inch. By this means he can get the tongue extruded its full length when he suddenly decapitates the bee. By this means he can measure it, with the aid of his microscope, to the exactness of one-thousandth of an inch.

G. W. Demaree, of Kentucky, addressed the Convention on the

Obstacles to Progressive Bee-Culture.

Bee culture, as a science, has made wonderful progress in the past few years, keeping fully up with the improvements of the age. But alas! how few, comparatively speaking, have profited by the flood of light that has flashed from the pens of the many able writers who have espoused the cause of the long-neglected honey bee. Other branches of industry have prospered, and held out their lights to the busy world, which has been grasped and appropriated by it. Bee culture prospers also, but it prospers as a "science," more than as an industry. The part it has played so far, as an industry, is the playing of the part of a "light in a dark place."

A well ordered apiary, managed intelligently, in which the apiarist avails himself of all the helps and improvements used by progressive bee-keepers, is a novelty in most any community.

How can we account for this state of things? Bee scientists are the most communicative class of men of which we have any knowledge, giving away their discoveries and inventions as freely as the air and water. The fault is not here. No branch of industry can boast of a greater number of able writers, better or abler written text books; nor is any branch of industry more ably and skillfully supported by the press than apiculture is. The fault is not chargable to the weakness of those who have espoused the cause of the honey bee; but rather to the many and formidable obstacles to progressive bee culture as an industry.

Chief among the obstacles to be removed, is the false teaching imbibed by mankind from the cradle to the grave. "Take care! that's a bee; a bee can sting," is one of the first practical lessons taught the child when it first opens its eyes upon the beautiful world. And faithfully does it retain the false lesson through all after life. It is found in juvenile books and magazines, put there by men who are as ignorant as the children they teach. It is one of those anomalous statements which is both true and false. True because the bee ,"can sting," and false because the idea is conveyed that the bee is ever on the alert to sting somebody, which is false and slanderous to the good and peaceable character of the honey bee. It has done its work, nevertheless, for perhaps 9 out of every 10 persons imagine that the honey bee is their deadly enemy, and will tell you that "bees always would sting them."

With this state of things existing, and the idea abroad in the land that honey is a luxury wrung from unwilling and vengeful bees, at the risk of being stung to death, we can comprehend why honey is a "luxury," and not a staple article, as it so richly deserves to be. The chief good to be accomplished by the apicultural societies in the land, is to eradicate this unreasonable prejudice, and to establish bee culture on a firmer basis, teaching the people that bee culture is not only not fraught with dangers above other employments, but is both pleasant and profitable. Having accomplished this much, all minor obstacles will vanish away, and the products of the apiary will take their place along with other articles of commerce, and will be "staple" in the fullest sense of the world.

Christiansburg, Ky.

T. F. Bingham, of Michigan, took exceptions to the subject matter of the address of yesterday, on "Making honey a staple product." He thinks when honey shall have become a staple product, and can be secured with the same certainty, and sells at as quotable prices as do the ordinary products of the farm, bee-keeping will have lost its attractiveness for most of those who now pursue it. It is the uncertainty of its production, and the many risks now attending its pursuit, that charms its votaries as does horse-racing with the sportsman or stock-gambling with the speculator.

G. W. Demaree disagreed with the gentleman in his ironical allusion to the subject. In his own county he was overseer of the poor. Every year and every day scores of poor people were supported at the public expense, who could become self-sustaining and honored members of the community if the views suggested by Mr. Coffinberry were carried into effect, making honey a staple product, and its price a reliable quotation, which would be the result of a continuous summer honey bloom.

Rev. L. Johnson said there were thousands of good and willing men, South as well as North, who had lost a leg or an arm, or were otherwise incapacitated from earning a comfortable livelihood at laborious employment, who would hail with joy the opportunity to support themselves. If bee-keeping was made a reliable occupation, with a certain production and a staple price, as was demonstrated by the author of yesterday's paper (Mr. Coffinberry.) These people were now more or less dependent; in the North their government provided pensions for them; in the South their hopes fled with their temporary government, and they depended upon the public charity. In the breadth of the land were hundreds of thousands of women, well adapted for bee-keeping, who are now drudging out their lives, often deprived of the merest necessities of life, who but want to be educated in apiculture, and a steady market to support themselves and contribute millions to the wealth and commerce of the nation.

Mrs. L. Harrison, Peoria, Ill., said that 18 years ago the doctors gave her but three years to live. She has now cheated them out of 15 years, and attributes her good health to her occupation as a bee-keeper.

Prof. Cook illustrated the adaptability of bee-keeping as a lady's occupation by instancing several cases where health had been restored through its pursuit.

On motion, the Convention adjourned till 1:30 p. m.

AFTERNOON SESSION.

The Treasurer, Mrs. Frances Dunham, of Depere, Wis., rendered her annual report, showing a balance in the treasury of $33.60, after meeting all expenses. Report was accepted.

Balloting for place of next meeting being in order,

D. A. Jones, delegate from the Ontario Bee-Keepers' Association, invited and nominated the next session to be held in Toronto, during the meeting of the Toronto Fair Association.

Wm. Williamson, of Kentucky, seconded the nomination of Mr. Jones.

A. W. Windhorst, of Ferguson, Mo., put in nomination St. Louis, which was seconded.

Dr. J. P. H. Brown, of Georgia, in an eloquent appeal, nominated Cincinnati.

C. F. Muth, of Cincinnati, seconded the motion, and tendered the use of a hall free from rent.

Dr. N. P. Allen, Kentucky, spoke in support of Cincinnati, and also extended an invitation to the members of the Convention to attend the Kentucky State Bee-Keepers' Convention, of which he is President, to be held in Louisville, Oct. 12 and 13.

Nominations declared closed, and Messrs. Poppleton, of Iowa, and Windhorst, of Missouri, were appointed tellers.

An informal ballot being taken, St. Louis received 8 votes, Toronto received 12 votes, and Cincinnati 18 votes.

On the second ballot, Toronto received 12 votes, and Cincinnati 26.

The time of meeting was left to the decision of the Executive Committee, and to be announced through the bee-papers in April next.

An elaborate treatise by C. Dadant, was read, on

The Influence of Honey on Wintering.

Nobody will question the influence of the food on health. Plants cannot thrive in a soil unsuited to them; man, as well as every kind of animal, needs a food easily digested and able to sustain life; bees are not an exception to this rule. Nay, more than man, more than most of the animals, they sometimes eat some kinds of food which, according to circumstances, can sustain their life or cause their death.

You have two colonies of bees entirely destitute of honey; you give one of these colonies for food a comb of good and well ripened clover honey; you give the other colony some molasses. Both colonies will seem to thrive equally well, if you make the experiment in summer, when they can enjoy a daily flight. But if you shut up both hives for two days, when you release them the bees of the one with clover honey will go out to void their intestines without you being able to see their feces. These will be so small, so light in color, that they will fall unnoticed, as in the every day purifying flight of a healthy colony. On the contrary, the bees of the colony fed with molasses will let large drops of dark and foul matter soil all the neighboring objects.

If, in lieu of the two days' confinement you prolong it for eight days, then, at the opening of both entrances, the bees of the colony with clover honey will act the same as after their two days' confinement, while the bees of the colony fed with molasses will crawl out, discharging their feces around the entrance; some, if not the greater part of them, will have their abdomens so much distended that they will be unable even to void their contents. These poor bees will crawl everywhere around their hive, and perish on the ground.

I can give another illustration of the influence of honey on bees during a close confinement: For years the importation of Italian queens into this country was attended with much loss; sometimes half of a shipment were alive. Such a result was then considered as a lucky one, for most of the time hardly one queen was received alive, to show that the bees were not all dead when put in the boxes.

Of course, such a business was far from being profitable, and more than one enterprising bee-keeper was deterred from continuing it, after a few trials.

What was the cause of such ill success? The main, if not at times, the only cause, was the quality of the honey given to the bees for food during the journey.

In Italy bees gather largely from a diversity of plants. Persuaded that success in that branch of business was possible, I began, with my shipper, a series of experiments to ascertain which kind of honey was the best for such a long confinement. After several careful experiments during two years, we succeeded so well in the selection of honey that we have many times received boxes containing queens which had barely a dead worker bee, after a journey of 22 days. Then our importing business became a success, and paid back all the money lost in seven years of unsuccessful importation, giving handsome profits besides.

Both these illustrations show what happens during the winter to the bees, according to the quality of the food that they have to eat.

Every bee-keeper has noticed that when, after winter, we find some of our colonies dead, if they have not starved or smothered they have perished with diarrhea, and that this same malady, if we can call it a malady, has also made sad havoc in in the population of some of our colonies, while some others have passed through the winter safely. I have even noticed that in such a diversity of fate, a few colonies were so free of diarrhea that I was unable to see a drop of foul matter around their hives.

Now let us see what had produced such a difference in the condition of these colonies. The indispensable food for bees is sugar, and chemistry shows that the most easily and most thoroughly digested form of sugar is cane sugar. Honey contains sugar in two different forms—cane and grape sugar. Some plants give honey with more cane, others with more grape sugar, consequently a honey containing the most of cane sugar, such as clover honey, will prove more nourishing than fall honey, which contains more grape sugar, and leave, besides, in the intestines of the bees a smaller quantity of undigested residues. Our bees in winter are confined for weeks, even for months, and it is easy to understand how the colonies with good honey, having less residues in their intestines, were able to remain in good health; while the colonies which had a poor quality of honey to eat, perished more or less rapidly, according to the quality of this honey—the bees with juice of fruits or honey-dew being ahead.

When the honey is stored in cells partly filled with pollen, the bees eat some of this pollen and their intestines are readily filled up. The same result follows when the honey is not sealed, for, not only is it watery, but the quantity of water that it contains is increased by the property that it possesses to absorb moisture. This water accumulates in the intestines of the bees, and if they are prevented by cold from voiding it, they become uneasy and perish.

Now that we understand this, one of the causes of sickness in bees during winter, let us remember:

1. Not to remove in summer all the spring honey that the bees have stored, leaving in the hives a sufficient reserve for the coldest part of winter.

2. To remove all the combs containing honey stored in cells partly filled with pollen. These combs are easily found on account of their opacity. They are splendid for bees in the spring, for this mixture will incite breeding.

3. To remove all the unsealed honey that the bees will be unable to consume before winter.

4. To remove also the honey-dew, when there is any.

5. To prevent bees going to the cider presses, or to remove the cider stored in the hive. This liquid always remains unsealed.

6. To replace with good sealed honey, or with good thick syrup all the honey taken out, so as to give to the bees sufficient provisions. The best syrup is made with one pound and one half-ounce of water for two pounds of granulated sugar.

Of course, such precautions are not indispensable every winter; for a bad food can keep bees alive if they have frequent flights. Besides, as it is very difficult to follow my advice to the letter, I have been accustomed to awake my colonies in winter every day when I foresee that the thermometer will reach 45° in the shade. This precaution is especially necessary with chaff hives, for the sun cannot easily warm them inside. The bees, thus awakened, enjoy a good flight, and return with empty bowels, ready for another confinement.

Hamilton, Ill.

O. O. Poppleton thinks as a rule, his bees do as well in winter on buckwheat or other fall honey, as on white clover. The main point is to have well ripened honey.

D. A. Jones prefers the basswood honey for wintering.

Dr. N. P. Allen prefers white clover, or well ripened fall honey.

The Secretary read a paper from Dr. W. R. Howard, of McKinney, Texas, on "Wintering Bees in Texas." [This may be found on page 299.—Ed.]

G. W. Demaree, Kentucky, thinks the practice of crowding bees in the hive as detrimental to successful wintering; if it crowds his bees to put them on six frames, he will give them eight—putting the unoccupied combs at the sides.

C. F. Muth has wintered colonies as well on twenty frames as on ten. Last winter two colonies were left on twenty frames, and they came through all right. He thinks the great loss during winter is caused by insufficient ventilation.

Mrs. L. Harrison, of Illinois, inquired if it was necessary to place an empty comb in the center of the brood chamber for wintering?

The question was answered by several in the negative.

The Secretary read a communication from Dr. C. C. Miller. Marengo, Ill., President of the Northwestern Bee-keepers' Society, on

Swarms vs. Comb Honey.

The principal value of a paper at a convention is the discussion which follows it, so I choose a subject on which I earnestly desire light, rather than one upon which I fancy I can give information. My sole business is in raising honey to sell, and the market obliges me to work mainly for comb honey. As every swarm that comes out means just so much less honey in boxes, any hint that will help me to prevent swarming will be of value. Of course I will be told, "give the bees plenty of room;" but sometimes they will swarm in spite of abundant room, and may there not be some little trick that some of you have discovered in the manner or time of giving the room, that may make some difference? I think I have gained something by getting the bees started early on as many sections as I think they will likely finish, for it has rather seemed to me that bees were not so likely to swarm, if by any means their whole energy could be directed toward the storing of honey. The advocates of side-storing, will claim that bees will commence quicker on sections, if the sections be at the side of combs on which they are already at work, and for some years I have tried to secure the advantages of side-storing without its objections, by simply placing in the super, between the sections, a frame taken from the brood chambers, of either brood or honey, and I don't know which is best. This frame is moved from one part of the super to another every 3 or 4 days, and whenever it is placed there, the bees are sure to commence work on the sections.

How much room should there be in the brood chamber? Mr. Doolittle thinks 7 Langstroth frames; Adam Grimm used 8. This season I have used from 7 to 10, and I confess I have come to no very definite conclusion, but I doubt if I shall ever use as high as 10 again. I rather incline to the opinion that, as a rule, I shall have 8 frames in a hive, putting one of them in the super; will leave 7 in the brood chamber during the storing season, and at the close, or near the close of the storing season, the 8th frame will be returned to the brood chamber filled with clover honey. But will not the bees be made more likely to swarm if they have only 7 brood frames? Who can tell us the most profitable number of Langstroth frames to be left entirely to the use of the queen? And if she has less room than her utmost ability to occupy, will it invariably promote swarming?

But when swarms do come, what shall be done that the storing in boxes may be the least interfered with? The plan given by J. J. Taylor, in September "Gleanings" appears good, but I like to place my hives in regular numerical order, and dislike very much to change their location. The main features of his plan, is to hive the colony in a box or empty hive, keep them cool and dark till after sunset, then shake down the bees from the old hive, and place the new colony in front of a hive in a new location, and let them run in, giving them the frames from the old hive after cutting out all queen cells. Now if this plan will let bees work with the vigor of new colonies, I suppose the inconvenience of changing location should not be considered.

Mr. Doolittle's plan is to cage the queen at swarming and put her in the hive, 5 days after swarming, cut out queen cells, and 5 days later cut out queen cells again and liberate the queen. I have lost a good many queens trying to improve upon this plan, but have failed to better it, unless it be that I generally give the queen for 10 days to some nucleus or queenless colony, instead of keeping her caged.

Will the bees work with more or less vigor on account of the presence of the caged queen?

I hope we may have the benefit of the experience of others in combating swarms for often it happens that in a discussion, a single sentence may throw more light on a subject than many pages of a long-winded essay.

Marengo, Ill.

The above paper was followed with considerable desultory debate, which had but little reference to the subject treated upon.

Dr. L. E. Brown, of Kentucky, here announced that a committee of reception had gone to the depot to meet Mr. Thomas G. Newman, editor of the American Bee Journal, who was expected on the train then due. Dr. Brown alluded to the eminent services of Mr. Newman to further the cause of apiculture in North America, that to his labors more than those of any other, could the North American Bee-Keepers' Society attribute its success, and that he had done more than any man living to create a market for honey, and to make it a marketable commodity. He moved that when the committee returned they and their guest be received by the Convention standing.

Dr. Allen, of Kentucky, moved to amend by adding that a recess of ten minutes be also taken to allow members an opportunity to greet Mr. Newman.

Which motions were carried unanimously, admidst much enthusiasm.

The reception committee here made their entrance, escorting Mr. Newman who was received by the Convention standing, when a recess of ten minutes was taken.

On being called to order, Dr. E. Drane, of Eminence, Ky., addressed the Convention on

How to Make Bee-Keeping Pay.

Some 5 or 6 years since I determined to make bee-keeping pay if possible. I had a fondness for bees and especially for honey. I had never read any work on apiculture, but concluded that there must be some standard works treating of bee-keeping; began to inquire for such, and learned that there was a paper published at Chicago, called the American Bee Journal. I immediately wrote a postal card to the editor and received a specimen copy in which the standard works on apiculture were advertised; also several other papers devoted to bees and the production of honey and the sale of bee-keeper's supplies.

I knew I had struck a bonanza for when a man is determined to obtain knowledge upon any subject, just give him access to the standard writings on that subject and he can soon know all that is known or unknown about the business. I subscribed for the Bee Journal, "Gleanings in Bee Culture"—procured Langstroth's work and Cook's Manual of the Apiary and several other works on bees and honey, read myself full of bee theory—went to see all of my friends or acquaintances who kept bees and who were supposed to understand scientific bee-culture. The idea seemed to prevail with them that everything depended upon having the right kind of a hive—they tried every kind—some had moth-traps and hives with frames were numerous, but never a frame could they move, the combs were crooked and crossed. No one offered to lift out a frame and show me the queen, but I was often invited to take a peep through glass as though it were a great treat to see bees under glass, hence I concluded that if my friends had ever understood scientific bee-culture, they had stood still until the wave of progress had gone by and left them 20 years behind. Talk to them about controlling swarming, extracting honey or rearing queens! Oh! that is all a humbug, they would say.

I therefore had to rely on my books and papers—making careful selection of the method that seemed most approved of and practiced by the great bee kings, who annually made reports of large yields of honey who had honey to sell by the ton—I studied their ways and endeavored to take lessons of them, I bought an extractor, adopted the Langstroth hive, had comb honey stored in prize sections, packed 12 in a crate and glassed the crate, kept extracted honey in 1 and 2 lb. jars in the stores around, and comb honey in crates, and never offered to undersell the market. I ask and get top prices and have learned to keep honey in prime condition (I never ship any in bad order) and I cultivate a home market by trying to keep honey for sale all the year round. Perhaps I might as well say that I have about twice as much extracted honey as comb, and find an increasing demand for it. I recommend all to buy extracted honey.

1st. Because it is cheaper and is sweet as comb honey.

2d. Because I can obtain larger yields of it than of comb honey and can make more money producing it, and I use it myself all the time.

For several years I have made careful memoranda of the time of blooming of all the plants, trees and flowers on which bees forage and the length of time they last and amount of honey and pollen the bees obtain from each, which enables me to know with reasonable certainty what the bees are doing or can do, according to the state of the weather, and the prevailing forage, either present or prospective. In proof of which, I attended to two apiaries away from home this year and had not a single swarm, and only visited them once a week, and occasionally at longer intervals. Had I never studied the subject of bee forage I should have been in continual doubt and uncertainty.

Let no one flatter himself that he can learn bee-keeping in a day. Each season imparts new lessons, and it seems as if I were just begining to know the cause of many things about bees and honey, and I do not hesitate to say that I firmly believe that I can make more money out of bees and honey with a capital of one thousand dollars, than average farmers do on five times that amount, taking the seasons as they come. But I wish to persuade no one to embark in the business for I know of no calling that is accessible to so many, and at which so few make money.

T. F. Bingham, Michigan, thought the address worthy of the highest encomiums, and that Mr. Drane should have the thanks of the Convention for crowding so much practical advice and correct conclusions in such a small and comprehensive space.

President Cook stated that pollen was in many cases injurious to bees in winter, as it had a tendency to unseasonable breeding, and hence was the cause of much spring dwindling.

Dr. J. P. H. Brown, Georgia, has found pollen very beneficial in the latitude of Georgia, but it might not answer so well in a Northern climate.

C. F. Muth, Ohio, thinks pollen is a great benefit to bees in his latitude, and he always gives them pollen combs if he has them, in March.

D. A. Jones. Ontario, thought Prof. Cook's ill-success with pollen was attributable to other causes. Mr. Jones said he never discriminated against pollen-combs in preparing the bees for winter.

C. F. Muth said he wanted brood in his hives by March 1, at the latest.

Adjourned till 7:30 p. m.

[Concluded next week.]

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. Miller, M. D., *Pres.*
C. C. Coffinberry, *Sec.*

☞ Owing to the fact that the time of the regular meeting of the Union Bee Association, at Shelbyville, Ky., conflicts with the time fixed by the executive committee, to hold the National at Lexington, the meeting of the Union, at Shelbyville. has been postponed till the 20th of October.
G. W. Demaree, *Sec.*
Christiansburg, Ky., Sept. 3, 1881.

☞ The Rock River Valley Bee-Keepers' Convention, will be held at Monroe Center, on the third Tuesday in October. We hope a good attendance will be the outcome, and the bee interest revived.
D. A. Cipperly, *Sec.*

☞ The Western Michigan Bee-Keepers' Association will meet in Berlin, Ottawa, Co., Mich., Thursday, Oct. 27, 1881, in Huntley's Hall, at 10:30 a. m. All interested, are cordially invited.
Wm. M. S. Dodge, *Sec.*
Coopersville, Mich., Aug. 29, 1881.

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.
N. E. France, *Sec.*, Platteville, Wis.

☞ The Michigan State Bee-Keepers' Association, will convene at Battle Creek, on Thursday, Dec. 8, 1881. We have reason to expect one of the largest and most interesting meetings we have ever held. Let all arrange to be present. All District Associations should send delegates. Each person should come with their best experience in their hands, ready to hand it over to the others of the fraternity. It is hoped that all will bring the fullest report possible from their region. Commutation rates are expected on railroads. A. J. Cook, *Pres.*
T. F. Bingham, *Sec.*

Special Notices.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

◆

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

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☞ Articles for publication must be written on a separate piece of paper from items of business.

◆

Photographs of prominent Apiarists—Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

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☞ When changing a postoffice address, mention the *old* as well as the new address.

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☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

Deserving Articles are Always Appreciated.—The exceptional cleanliness of Parker's Hair Balsam makes it popular. Gray hairs are impossible with its occasional use. 40w4t

◆

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

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Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. It will pay to devote a few hours to the BEE JOURNAL.

◆

It is the Height of Folly to wait until you are in bed with disease you may not get over for months, when you can be cured during the early symptoms by Parker's Ginger Tonic. We have known the sickest families made the healthiest by a timely use of this pure medicine.—*Observer*. 40w4t

◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

◆

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL, }
Monday, 10 a. m., Oct. 10, 1881. }

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 8@9c.
BEESWAX—Prime quality, 18@22c.
AL. H. NEWMAN, 972 W. Madison St.

CLEVELAND.

HONEY—There is a slight improvement in our market for comb honey. One pound unglassed sections find ready sale at 21c. for white, and 20c. for 2 lb. sections. Extracted honey continues at dull 10@12c.
BEESWAX—20@22c.
A. C. KENDEL, 115 Ontario Street.

NEW YORK.

HONEY.—The advices give a middling fair crop of honey. Moderate lots have arrived, but the demand so far has been very slow, and but little improvement can be expected until we have cooler weather.

We quote as follows: White comb, in small boxes, 18@20c; dark, in small boxes, 15@17c. Extracted, white, 10@11c.; dark, 7@9c.
BEESWAX.—Prime quality, 21½@23c.
THORN & CO., 11 and 13 Devoe avenue.

CINCINNATI.

HONEY—Is in good demand here now.
I quote: Good comb honey, in sections, is worth 18@20c., on arrival. Extracted, 7@9c. on arrival.
BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

BOSTON.

HONEY.—1-pound combs are a desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.
BEESWAX—Prime quality, 25c.
CROCKER & BLAKE, 57 Chatham Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.
BEESWAX.—Southern, pure, 21@23c.; Western, pure, 21@ 22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 20@25c.—*Indianapolis Stock Review.*

SAN FRANCISCO.

HONEY.—Sales of choice comb, to arrive, have been effected at 20c. for small lots. It is doubtful if an order for a large lot of choice comb could be filled in this market. Choice extracted, in barrels, is quotable at 9@9½c

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 9@10½c.; dark and candied, 8c. BEESWAX—23@25c.
STEARNS & SMITH, 423 Front Street.

ST. LOUIS.

HONEY.—In fair request. Strained, 8c.; extracted, 9c.; comb, 16@18c—latter for bright.
BEESWAX—Prime yellow sells at 19@20c.
R. C. GREER & CO., 117 N. Main Street.

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.
BEESWAX — Best light 23@25c.—*Philadelphia Merchants' Guide.*

Local Convention Directory.

1881. *Time and Place of Meeting.*

Oct. 18—Rock River Valley, at Monroe Center, Ill.
D. A. Clpperly, Sec., Monroe, Ill.
20—Union Kentucky, at Shelbyville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
25, 26—Northwestern District, at Chicago, Ill.
C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.
Dec. 8—Michigan State, at Battle Creek, Mich.
T. F. Bingham, Sec., Abronia, Mich.
1882.
Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

◆

☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

◆

☞ Subscriptions may commence with the first number of any month in the year.

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Quart,	" 2½ " " ...	1.20....	7.00
Pint,	" 1¼ " "	.75....	4.00

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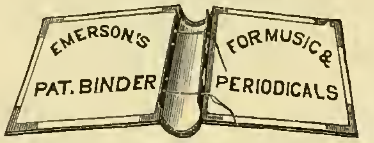

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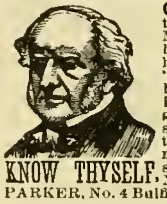

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This work is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. It is fully "up with the times" on every conceivable subject that can interest the apiarist. It is not only instructive, but intensely interesting and thoroughly practical.

—:o:—

Read the following opinions of the Book;

All agree that it is the work of a master and of real value.—*L'Apiculture*, Paris.

I think Cook's Manual is the best of our American works.—LEWIS T. COLBY.

It appears to have cut the ground from under future book-makers.—*British Bee Journal.*

Prof. Cook's valuable Manual has been my constant guide in my operations and successful management of the apiary.—J. P. WEST.

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This book is just what everyone interested in bees ought to have, and which, no one who obtains it, will ever regret having purchased.—*Mich. Far.*

Is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without.—*Nebraska Farmer.*

To all who wish to engage in bee-culture, a manual is a necessity. Prof. Cook's Manual is an exhaustive work.—*Herald*, Monticello, Ill.

With Cook's Manual I am more than pleased. It is fully up with the times in every particular. The richest reward awaits its author.—A. E. WENZEL.

My success has been so great as to almost astonish myself, and much of it is due to the clear, disinterested information contained in Cook's Manual.—WM. VAN ANTWERP, M. D.

It is the latest book on the bee, and treats of both the bee and hives, with their implements. It is of value to all bee-raisers.—*Ky. Live Stock Record.*

It is a credit to the author as well the publisher. I have never yet met with a work, either French or foreign, which I like so much.—L'ABBE DU BOIS, editor of the *Bulletin D' Apiculteur*, France.

It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat*, Pulaski, N. Y.

We have perused with great pleasure this *vade mecum* of the bee-keeper. It is replete with the best information on everything belonging to apiculture. To all taking an interest in this subject, we say, obtain this valuable work, read it carefully and practice as advised.—*Agriculturist*, Quebec.

This book is pronounced by the press and leading bee-men to be the most complete and practical treatise on bee-culture in Europe or America; a scientific work on modern bee management that every experienced bee-man will welcome, and it is essential to every amateur in bee-culture. It is handsomely printed, neatly bound, and is a credit to the West.—*Western Agriculturist.*

This work is undoubtedly the most complete manual for the instruction of bee-keepers which has ever been published. It gives a full explanation regarding the care and management of the apiary. There is no subject relating to the culture of bees left untouched, and in the compilation of the work Prof. Cook has had the advantage of all the previous knowlede of apiarists, which he uses admirably to promote and make popular this most interesting of all occupations.—*American Inventor*

It may safely be pronounced the most complete and comprehensive of the several manuals which have recently appeared on the subject of bees and their handling in apiaries. The studies of the structure of the bee, the different varieties, the various bee products, and following these the points of management, extending to the smallest details, are all of high and practical value. Prof. Cook has presented the latest phases of progressive bee-keeping, and writes of the themes discussed in the light of his own experience.—*Pacific Rural.*

Of the many excellent works which we have examined on bee-culture, we consider Prof. Cook's the most valuable for the study of those who contemplate going into the business or are already keeping bees. If thoroughly studied, and its teachings conformed to, by the apiarist, who exercises a reasonable degree of common sense, he or she cannot fail to achieve at least a reasonable degree of success. The author addresses himself to the work with a degree of enthusiasm which carries the reader with him to the end.—*Kansas Farmer.*

Cook's Manual of the Apiary holds in America the same high rank, that is accorded in Germany to the book of which Dzierzon is the author; the only difference being that Prof. Cook's Manual combines the profoundness of the German pastor with the superiority of the practical American. He refers in several instances to Darwin; and does not belong to that class which hates everything that is foreign, for he speaks of German naturalists with great reverence.—*German Freidenker*, Milwaukee, Wis.

—:o:—

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☞ The Chicago District Convention will be held at the office of the BEE JOURNAL, on Oct. 25, 26, and a cordial invitation is extended to all bee-keepers who can, to attend. Arrangements for hotel accommodation and table board will be made known at this office. Let there be a general rally.

☞ The Rev. L. L. Langstroth was unable to attend the National Convention, his health being too poor to allow of his leaving home. Learning of his needs, several of his friends started a donation fund for him, and many of the queen bees and implements were donated, to be sold and the proceeds to be added to the fund. Any one wanting a pure Imported Cyprian queen of the Jones importation, or one of "Davis' Patent Honey Carriage Revolving Comb Holder, Tool Box and Recording Desk, Combined," can obtain them and at the same time do a kind and generous act to our friend Langstroth. Apply at this office for the queen or Honey Carriage, and any one desiring to do so, can send any amount to be added to the sum already collected.

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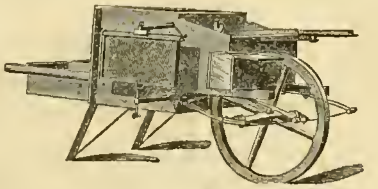

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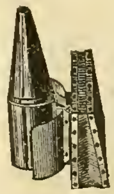

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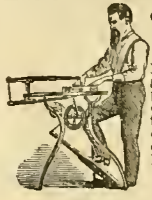

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THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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EDITORIAL

☞ We give up much of the space in this number of the BEE JOURNAL to the the Report of the National Convention.

◆

The Value of the Honey Crop of America.—In the BEE JOURNAL for last week an error occurred in the figures representing the value of the honey crop. The last two ciphers should have been pointed off to represent cents, leaving the value at *fifteen millions of dollars*. To save misapprehension, we subjoin the paragraph corrected, as follows:

There are in America about 3,000,000 colonies of bees, but our reports are from less than a quarter of a million, or one-twelfth of the whole. If the one-twelfth that are reported are a fair average of the whole, then the crop of American honey for 1881 amounts to 120,000,000 of pounds. If we call it only a hundred millions, it is worth $15,000,000.00. Surely the industry is of sufficient magnitude to satisfy the most enthusiastic of its devotees.

◆

☞ The Chicago District Convention will be held at the office of the BEE JOURNAL, on Oct. 25, 26, and a cordial invitation is extended to all bee-keepers who can, to attend. Arrangements for hotel accommodation and table board will be made known at this office. Let there be a general rally.

The Langstroth Donation Fund.

A meeting was called at Lexington, Ky., after one of the sessions of the National Convention, to take some definite action relative to the recent illness of the Rev. L. L. Langstroth.

Mr. D. A. Jones said that as Mr. L. had been defrauded out of the results of his labors, he proposed that *he* be presented with a testimonial, as a slight appreciation of his genius as an inventor, and his eminent ability as a writer and scholar. He would inaugurate the movement by offering two Cyprian queens to be sold, and the proceeds to be paid to the donation fund for Mr. Langstroth.

Thomas G. Newman was chosen to negotiate the sale of articles contributed. On accepting the appointment, he announced he would contribute $10, which was followed by a contribution of $10 each from Prof. Cook, Dr. Parmly, C. F. Muth and Dr. J. P. H. Brown.

Judge Andrews purchased one of the queens contributed, for $13, remarking he had no use for the queen. Mr. Newman purchased the second for $10.

T. F. Bingham contributed 6 of his smokers, which were sold to Messrs. J. C. Peden, J. T. Connley, W. H. Howlet and C. F. Muth.

C. H. Dean contributed a chaff hive, which was sold to Rev. L. Johnson.

T. F. Bingham contributed a Bingham & Hetherington uncapping knife; sold to Dr. A. B. Barker.

J. M. Davis contributed his honey carriage on exhibition. This is still for sale by Mr. Newman.

Prof. Cook contributed 6 copies of the Manual of the Apiary, which were sold to A. W. Windhorst, Nelson Perkins, J. W. Northcutt, G. M. Freeman, and 2 to Wm. Williamson.

Wm. Williamson contributed a queen; sold to J. W. Northcutt.

T. G. Newman contributed 13 photographs of Rev. Mr. Langstroth, which were sold at 50 cents to the Rev. L. Johnson, D. A. Jones, Dr. E. Drane, G. W. Demaree, O. O. Poppleton, A. J. Cook, J. R. Williamson, H. C. Hersperger, J. W. Northcutt, Mrs. L. Harrison, Wm. Williamson, J. T. Wilson and J. T. Connley.

Any one wanting a pure Imported Cyprian queen of the Jones importation, or one of "Davis' Patent Honey Carriage Revolving Comb Holder, Tool Box and Recording Desk, Combined," can obtain them and at the same time do a kind and generous act to our friend Langstroth. Apply at this office for the queen or Honey Carriage, and any one desiring to do so, can send any amount to be added to the sum already collected.

◆

☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

CORRESPONDENCE

For the American Bee Journal.

A Good Fall Harvest.

O. CLUTE.

After the long drouth of July and August, it seemed probable that there would be little fall bloom, and hence little honey. I made up my mind that some of my late-made colonies would have to be fed or else doubled up, but my unfavorable expectations were happily overthrown. There has been a very good fall harvest.

The heavy flood about the middle of July swept the bottom lands along the Iowa river clean. All crops and weeds were killed. This left a free field for the heartsease, which came on in great profusion; there are many acres of it. Its delicate pink gives a beautiful color to the borders of the stream. It yields honey well, though not so copiously as white clover. The color is a clear amber, a shade darker than white clover. The comb is a clear white, and when filled with honey there is often a faint blush of pink; the flavor is excellent. Here the weather has been extraordinary. I am writing this the 3d of October, and there has, as yet, been no frost that would kill the honey flowers. Tomatoes in my garden are as green and luxurant as ever plants were. There has been but few cloudy days, and only one cold storm which lasted for 2 days, hence the bees have been able to work nearly every day and all day long. The abundance of bloom, and the long-continued fine weather are making the fall harvest much better than was expected.

Iowa City, Iowa.

◆

For the American Bee Journal.

Preparation for Winter.

WM. STOLLEY.

In No. 39 of the AMERICAN BEE JOURNAL, I find an article headed, Extracting from Surplus combs, etc., (preparing for winter). "This preparation should be attended to during the last of Sept. or the 1st of Oct."

Considering this advice to be good, I this morning went to work, begining with a young colony, I found that of the 10 frames fully occupied (12½x12½ inches), 8 were partly filled with brood in all stages, and 2 of them contained considerable eggs. I therefore concluded that it would not do yet, to contract their space much, and took out but one frame solidly filled with honey sealed. The lower part of the hive including 9 frames and comb, weighed 37½ lbs., and the total weight after I had put back bees, brood and honey, was 94½ lbs., besides the one frame taken out which weighed about 6 lbs.

Now the question with me is: "Is it not better to wait with the final preparation for winter until nearly all brood is hatched?"

We had a severe hail storm on Sept. 29, doing away with my buckwheat entirely, but my bees work on wild autumn flowers as though they had all they wanted or more. My maxim is (as it always was), *slow, but sure*, and all my bees (14 colonies) have more or less surplus in their brood chamber, and I will get my surplus when I prepare them for winter.

I only extracted so far but about 50 lbs. out of middle frames, wherever the bees were crowding out the queen by storing too much honey in the brood chamber.

Grand Rapids, Neb., Oct. 1, 1881.

[Yes; but as a rule, the sooner prepared in the fall, the better.—ED.]

SELECTIONS FROM OUR LETTER BOX

Good Crop of Honey.—The honey crop has been good this fall. My bees average 125 lbs. comb honey per colony this season. CHAS. M. GAYLORD.

Clyde, Kan., Oct. 7, 1881.

Young Basswood Trees.—Correspondents often inquire where they can get young basswood trees. They can be obtained from almost any of the large commercial nurseries. American linden (basswood) seedlings are quoted at $6.00 per 1000. The young seedlings of basswood transplant very easily, and I believe it would almost grow from cuttings in a deep, cool soil, which the linden prefers. The linden may be propagated by layers. If raised from the seed, should be sown when ripe or kept in damp sand in a cool place till spring. Seed sells at $1.00 lb. D. P. NORTON.

Council Grove, Kan., Sept. 29, 1881.

Mr. J. S. Hill's Method of Preparing Bees for Winter.—As the BEE JOURNAL gives to its readers the painful intelligence of Mr. Langstroth's failing health and his sorrowful utterance, "I am unable to take any interest in bee matters," we cannot expect him to give us the much-desired plan practiced by Mr. J. S. Hill, of Mount Healthy, O., of preparing his colonies of bees for wintering, as he promised. I respectfully request him to give to the JOURNAL readers a clear and practical statement of the preparation he gives his colonies of bees, so as to safely pass through such a cold winter as the last, and oblige many readers of the JOURNAL. L. JAMES.

Atlanta, Ill., Oct. 5, 1881.

Large Crop of Honey.—You made a mistake in my report; I had 25 and increased to 92 colonies; took 3,107 lbs. extracted and 2,920 lbs. of comb—in all, 6,127 lbs., averaging 241 lbs. One colony with increase (1 swarm) gave 506 lbs. of box and 10 Langstroth frames of honey, with plenty left for winter.

Burlington, Wis. H. NEWHAUS.

CONVENTION NOTES

TWELFTH CONVENTION

OF THE

North American Bee Keepers' Society

HELD IN THE

Odd Fellows' Temple, Lexington, Ky.,

COMMENCING ON

WEDNESDAY, OCTOBER 5, 1881.

[Concluded.]

EVENING SESSION.—OCT. 6.

President Cook announced the following as committee on resolutions: C. C. Coffinberry, Illinois; D. A. Jones, Ontario; Dr. J. P. H. Brown, Georgia.

The following report was read from A. J. King, Vice President for New York:

Owing to the fact that at least ⅝ of all the bees in this State perished during our last terrible winter, the aggregate honey crop must necessarily be much less than under ordinary circumstances; yet taking the number of effective colonies alive in April, it is doubtful if their work has ever been exceeded, if indeed equaled, in any preceding year. With the exception of a few localities, we have reports of large yields all over the State. The ⅜ of survivors, by taking advantage of the early and abundant honey flow from the locust groves, and afterward, the white clover and basswood, have more than retrieved the loss of the ⅝ which perished. The surplus honey this year is of the finest quality, and owing to the early and long-continued drouth in other parts of our country, it finds a ready market at remunerative prices. These results have been secured mainly from white clover and basswood. The locust and some other early bloom being used mainly to "breed up" with.

Mr. L. C. Root, the well known successful apiarist, and president of the North Eastern Bee-Keepers' Association, has taken from 160 colonies, an average of 100 lbs. of white clover, and 125 lbs. of basswood honey, making an average in all of 225 lbs. per colony, his best yield from a single colony in one day being 20 lbs. of honey. The larger part of his crop, we believe, was taken with the extractor. This is the best yield we know of, but Mr. G. M. Doolittle has written us that his report will be better at the close of this season than any he has given for several years. Mr. C. J. Quinby, of White Plains, reported an average of 100 lbs., mostly locust honey, as early as July 1st., since which time we have not heard from him.

Our own apiary of 75 colonies, on the roof of the building No. 14 Park Place, New York City, has not been run for honey, but we believe we could have obtained at least 75 lbs. of nice honey per colony, had we desired it. We have tripled our number of colonies and reared several hundred queens, and have now about 60 colonies in fair condition for wintering, which will be done on the roof. We have quite a large number of partial reports from nearly all parts of the State from apiarists of all degrees of advancement in the art, and think we would be safe in assuming that New York will show an average yield of about 50 lbs. of surplus honey to each colony of bees, and this, so far as our knowledge goes, will place her in this regard at the head of the list of States for this season's work.

We have taken some pains to find out the causes of the great loss of bees in this and other States during last winter and spring, and feel constrained to charge it up to a very large extent, either to a lack of knowledge or downright shiftlessness, or perhaps both, on the part of those who suffered loss. This may look like a serious charge, but nothing would have given us more pleasure than to have attended your convention and proven the general truthfulness of the charge by hundreds of practical illustrations, had circumstances over which we had no control permitted.

The reproach, that bee-keeping is at best a very precarious business, has been put upon it mainly by two classes of persons. The first and larger class are ignorant and lazy, and never succeed in anything but to complain about fate, luck, and the mysterious ways of Providence. The other class complain from fear of competition, and so parade the failures of the former before the public, as a kind of barrier to prevent others from engaging in the business, or else they keep still from the same cause. If honey is ever to become a staple article of consumption like other syrups, the price must correspond to quality when compared with them, and the supply must be kept up so that it can always be depended on at some price, and this will be done by having a sufficient number engaged in the business, to gather up and save the millions of pounds which still is allowed to go to waste in all parts of our country.

As a rule, success in our business is the result of knowledge obtained by practice and familiarity with the causes leading to the success of others, and failure is the opposite of this. So to "advertise" the failures of those who are born to fail, because born without the capacity for intelligent thought and action, is like expecting to be nourished by feeding on the wind, but to publish the success of intelligent management, giving all the "modus operandi" leading to the same, is to point men onward in the right direction. Failures to be entitled to publication should be the results of the experiments of "wise" apiarists, and only such are of any real good to the cause of bee-culture.

C. F. Muth, Cincinnati, O., gave the following address on

Wintering of Bees.

After a severe winter like the one of 1880-81, during which perhaps 75 per cent. of all the bees in the Middle States of North America died, it is very natural that the subject of wintering is taken up again from very many sides. Although it has been discussed considerably, I am certain that the matter is not yet understood by many. Several very able articles appeared in our Bee Journal during the current year, the best of which was that of our old friend, Rev. L. L. Langstroth.

All are convinced that everything that breathes requires fresh air. We know that even plants die without it; and when, at the approach of winter, our bees glue up every crevice in the upper part of the hive, it is not because nature teaches them what is best for their welfare, but coming from a warmer climate, they aim to exclude cold air, and, like all the lower animals, do not profit by past experience.

With an insufficient ventilation of school houses in our large cities, the majority of our children would die of consumption. It is folly, therefore, to suppose that without sufficient ventilation a colony of bees can pass through winter successfully, especially so when the winter is cold and long, when the bees are required to consume more food than usual in order to create the necessary heat to sustain life, and when their exhalations keep condensing into water by the pressure of the cold from without. The dampness becomes so great that the water runs out below, the combs become moldy, and just as certain as cider turns into vinegar quickest in a warm, damp room, so will the honey turn sour under like circumstances, and dysentery will be the result. The colder the weather, the greater the effort of the bees to create heat, and the more moisture will accumulate. The absorption and ventilation should be improved in the same ratio as the weather becomes colder. The necessary number of bees, quantity and quality of food, and pure air without a draft, are undoubtedly the principal factors in successful wintering. The means of securing these requisites differ according to locality, climate, and hive in use, and, as our own views are at variance as much as our surroundings, it is very natural that some of us will always succeed better than others.

Not having lost a colony of bees for years past, and but 25 per cent. of my colonies during the last winter, it may do the most good to tell the manner in which my bees were put up.

I have always tried during the honey season, and afterwards, to secure good wintering combs, that is, combs well filled with capped honey in the upper part, or more. They were placed in the middle of the hive, in and around the cluster of bees, with a winter passage cut through the middle of every one. I have long abandoned the ridiculous idea of placing one or two empty combs in the middle of the hive for the bees to cluster on. On the contrary, I cram the most honey possible in the middle of the hive, giving the bees a chance to cluster on the lower parts of the combs, and to move upward gradually as the stores about their cluster get consumed. Small colonies should have the space contracted by means of division boards, according to their strength, because they cannot keep up a comfortable temperature in a large hive. I have always wintered on the summer stands, and without the second stories on the hives. The covering for my bees was a straw mat, with a strip of wood placed on each end, on which the cover rested. An air-space of about an inch was made above the mat. For about ten or twelve years, during which time we have had very severe winters, I have had no loss to report. There were, besides, no moldy combs in my hives, which was a proof of proper ventilation.

Last fall, however, I left only an air-space of one-sixteenth of an inch below the cover, thinking that sufficient, as it was during the two previous mild winters; but the winter was too severe, all of my hives were damp, and those which were dampest lost the most bees. Insufficient ventilation was the cause of my last winter's loss. Two of my colonies prepared as of old, with an air-space of one inch above the straw mat, were my only colonies that came through safely and in good condition. As bees all over the country suffered alike, in single-walled as well as in double-walled and chaff hives, I am more convinced than ever that a proper ventilation is the great secret of safe wintering.

O. O. Poppleton, Iowa, makes no provision for upward ventilation. He uses frames 12x12 inches square, with wide top-bars, and there is but little chance for air to get through.

T. F. Bingham, Mich., has found a large accumulation of dead bees on the bottom-board each winter. He intends to raise the frames this winter at least two inches from the bottom, so as to have room to scrape out the dead bees frequently.

C. F. Muth will continue to use a second story in wintering, then bore inch holes in the ends of the upper story, so as to give a free circulation of air above the packing.

J. C. Peden, Lawrenceburg, Ky., approved Mr. Muth's suggestions; he gave several interesting illustrations in proof of his views.

A paper was read from W. Thomas, Adelphi, Ohio, entitled

Dysentery in Bees, and its Causes.

We have selected the above topic for a short essay, not because we feel that we are master of the subject, but for the reason that we hope to awaken thought, and perhaps be able to throw a little light upon this vexed question. The subject is certainly one of vital importance to every bee-keeper, and for this reason should be fully studied and well understood by all.

The great difficulty with most of us who write on this subject, is to divest ourselves of preconceived notions and theories, being, as a general thing, inclined to trace this trouble to some one particular cause. One traces it altogether to cold weather, another thinks it entirely due to long confinement, and a third to bad food, a fourth to over-vegetable matter in the honey, or infinitessimal animalculæ, called bacteria, while a fifth of equal experience, claims that it is altogether due to excitement, but that long confinement, cold weather, bad food, etc., have nothing to do with bringing on the disease. Now all of these cannot be right, and yet perhaps few of them are altogether wrong.

We start out with the proposition that indigestion is the cause of dysentery, and that any cause that will produce indigestion will bring about this disease. As in the human system so in insect life; if the food is too strong for the stomach, or is taken in quantities beyond what nature requires, the result is an undue tax on the digestive functions. The organs of the bee are adapted to certain kinds of food under certain conditions, and in certain quantities, and any radical or excessive departure from the true normal conditions is sure to bring about trouble.

Pure wholesome honey is at all times and seasons the natural food for the bee, but there may be causes, as we will try to show further on, when this is taken in such quantities as to bring on indigestion or dysentery. The same cannot be said of pollen, for while pollen is indispensable to the development and growth of the young bee, the same is not true of the bee in its mature state, especially when long confined to its winter quarters without a fly. An excess of pollen and a lack of good honey under such circumstances we believe to be a fruitful source of this dread disease. In such cases the bee becomes overburdened with a food that is too strong for its digestion in its confined condition, and the result is dysentery. The same may be said of any kind of bad food, such as the juices of fruit, sour, uncapped honey, or bad, unwholesome honey, such as is sometimes gathered late in the fall. Confinement under such circumstances, no doubt, has a very aggravating influence, the bees frequently becoming diseased, when, if they had an opportunity to fly to void their feces, no evil would result to them. When the conditions of which we have spoken exist, there may be other causes of an aggravating character, such as excitement, brought about in any way by a disturbance of their normal condition. In a disturbed and excited condition they will gorge themselves, and unless their food is of the best character, the results are sure to be evil. And even the purest honey, when under such circumstances taken greatly in excess, is sure to produce dysentery if the bees are long confined without a fly.

And this brings us to consider the effect that cold has in bringing on this disease. We have already said that any undue excitement or disturbing cause has its evil results, and we know of no one cause that is of a more exciting nature to our little pets than that of excessive cold. Bees are inclined at a moderate temperature to pass into a semi-torpid, quiet condition, and as one writer says, "When in this state it is very easy to rouse them from it by gently shaking or tapping the hive. When this is done in winter the bees wake up, so to speak, become excited, and soon, by the rapidity of their respirations, raise the temperature of the hive to a great height." The same writer, speaking of the striking effect of the sudden disturbance of bees, says:

"On the morning of Jan. 2, 1836, at a quarter past 7 o'clock, when there was a clear, intense frost, and the thermometer in the open air stood a little above 17°, and that in the hive marked a temperature of 30°, that is actually two degrees below the freezing point, the bees were roused by tapping on the hive, and in 16 minutes the mercury rose to 70°, or 53° above the external air."

As we have already remarked, bees if left alone quietly in moderately cold weather will pass into a partially torpid, or as one writer says, "sleepy condition," from which, however, by a beautiful provision of nature, they are aroused by excessive cold, when, breathing with great energy, an amount of animal heat is soon produced that speedily raises the temperature of the hive. By actual experiment, it has been shown that the temperature of the hive may, in a few minutes, by disturbing the bees, be increased over 50°.

Thus we see that severe cold is the most serious disturbing cause that the apiarist has to contend with, and it does no doubt, at times, produce an undue amount of excitement. This excitement and the desire for food to keep up the requisite amount of animal heat, causes the bees to fill themselves to excess, and thus brings about an abnormal condition, which finally results in dysentery. But the difficulty does not stop here, for if the bees are long exposed to excessive cold, their continued efforts to keep warm and thereby preserve life, will soon destroy their vitality. In reality there is, to our mind, no other cause so destructive to bee life as severe cold. It causes excessive feeding, requires a great waste of vital forces, and in this way the tendency is continually toward disease and death. There is still another trouble brought about by the disturbance of bees by excessive cold. In their efforts to keep up heat, their rapid breathing has a tendency to increase the humidity of the atmosphere in the hive, and this being heated and coming in contact with the cold from without, condensation takes place, and frost and ice, or dampness and mold is the result, thus rendering the hive to a greater or less extent, unhealthy for the bees. Dysentery can frequently be traced to long-continued dampness, caused by imperfect ventilation.

To sum up the matter, we believe there is always a tendency to disease, if from any cause bees are left long in an abnormal condition. Such a condition always has a tendency to enervate and destroy their vitality, while if the normal condition of plenty of good food, warmth and ventilation are observed, no trouble is likely to ensue from dysentery or any other disease. If we would avoid this dread disease, let us pay strict attention to these three vital points—plenty of good food, warmth and ventilation.

T. F. Bingham, Michigan, asked Mr. Poppleton if his bees did not breed in winter?

Mr. Poppleton answered they might breed a very little, but not enough to do harm.

G. W. Demaree, Kentucky, inquired of Mr. Poppleton if he handled his bees in January?

Mr. Poppleton answered that he did not. He prepares his bees in the fall by packing on the summer stand. Formerly he wintered them in a cellar, but his losses in that way were too heavy, and he adopted the out-door method, since which time his losses have been very trifling, not exceeding four per cent. When prepared in the fall, they are not disturbed until they can work with safety in the spring.

Dr. N. P. Allen, Kentucky, stated he had but few cases of dysentery among his bees last winter, and these cases he attributed to the fact that the hives containing the affected colonies were shaded all winter; he thought dysentery was the result of cold and dampness, and was now convinced the hives should stand in winter where they would get all the sunshine.

Rev. L. Johnson, Kentucky, thinks bees can usually be revived after several hours apparent death, except where dysentery has been the cause. Mr. Johnson recited several instances where he had resuscitated bees apparently dead from cold and from drowning.

C. F. Muth corroborated Mr. Johnson's views.

F. Della Torre, Maryland, claimed that dysentery was directly attributable to excessive moisture in the hive. Sulphuretted hydrogen is caused by the dampness, and this is a deadly poison; however, this can be overcome by several chemical agents, among which is quick-lime (unslacked lime.)

Miss Marie Nottnogel, Lexington, Ky., a beautiful little girl of 7 years, delivered a short recitation on the honey bee, and was decorated a member of the North American Bee-Keepers' Society by President Cook, in an eloquent little address.

The following valuable paper from W. T. Stewart, Eminence, Ky., was read, entittled

The Cultivation of Honey Plants.

Good forage of honey producing plants is the foundation or chief corner-stone of profitable bee-keeping. We may be full of knowledge pertaining to science in apiculture, have all the books and journals, the best strains of bees, best hives, with the best surplus arrangements, best extractors and foundation machines, etc., and with all these, if we are located where pasturage is not plentiful, we cannot make bee-keeping profitable. Good and plenty of forage is the mainspring that makes all the other things a success. It is folly to try, or expect, or even hope to make bee-keeping pay in dollars and cents without a sufficiency of honey plants from which to obtain honey, and yet it is the most neglected thing in the bee business. But few of us have ample pasturage naturally for our bees, and the best of locations can be greatly improved at a trifling cost, and the very worst locations can be made good by a judicious planting for forage. The cost of artificial pasturage is but a trifle when compared with the good resulting from it. A few dollars spent in making pasturage will pay a big percentage on the investment, if invested intelligently. What to plant, when, where, and how to cultivate to obtain the best possible results is what we want, and it is very essential that we have a knowledge of the nature of the various plants, and also the value of each particular plant as a honey producer. It is just as easy to plant the good, as it is the poor, and takes the same land for either. After considerable experimenting and close observation comparing and calculating, I have come to the following conclusions as to what is best to cultivate, and how to cultivate it: By observation, comparisons and calculations, I conclude that figwort (Simpson honey plant) is the best honey plant I ever saw. Motherwort, second best; catnip, third best; melilot, fourth best, etc., and I prove it in this way, to wit: White clover is called king of honey plants, and we begin by comparing the advantages and disadvantages of the one plant with the other, hence we get facts.

For cultivation, white clover blooms the second year from the seed, beginning to bloom in June, branching and blooming profusely for 30 or 40 days, yielding abundance of nectar, and of superior quality, is greatly affected by atmospheric changes, some seasons being nearly a failure on this account; it secretes nectar about half of each day when the weather is favorable, and fails some days in the best of seasons; winter kills badly, etc., producing nectar only about 15 or 20 days, averaging one season with another.

Figwort blooms the second year from the seed, blooming the first of July, and continues spreading and blooming until killed by cold weather, or about 120 days here in Kentucky. It will yield as much honey to the flower as clover, and produce as many flowers to the acre per day as clover. It yields nectar from daylight till dark every day, despite atmospheric changes. Nectar is of first quality; it comes from the root for a lifetime, where once planted, winter does not kill; it does not need to be cultivated when once established. We at once see that with the same number of acres of each, figwort is the best by about 80 to 100 days of honey harvest (quite an item). Motherwort bears nearly the same comparison with clover as does figwort; the only important difference is that it does not hold out as long by about 20 days as figwort. But even then it lasts about 4 times as long as clover, and is fine forage as long as it lasts. Catnip is a very excellent honey plant, and is a favorite with bees. It blooms full three months, and produces rich nectar, and that abundantly; is easy grown from seed, blooms the second year, and continues to spread and grow from the old root for years; it seeds itself, and new plants are constantly springing up. The old plants are easily killed where not wanted. It will richly pay to seed all the fence corners and places not cultivated, with catnip. It prefers rich, loose soil, but will grow wherever you tell it to. Melilot comes readily from new seed, and blooms the second and third years, then dies root and branch, but will re-seed itself anywhere and everywhere in the neighborhood of the old plant. It will thrive on any soil, hard or loose—it has this advantage over any other fine honey plant; and is just about as good along traveled roadsides as anywhere; it is well suited for nooks and corners; it blooms profusely for full three months, and is rich in nectar when it is not too dry and windy. Honey is of good quality, and you cannot afford to do without it, and when once you have it you will never be without it.

Basswood is good, if we have plenty of it naturally; but to undertake to cultivate it alone for honey, would not be wise; while you are waiting about 10 years for it to bloom from seed, you can get rich from the fig and motherwort, judiciously planted. Basswood yields abundantly while in bloom, but it only lasts 10 or 12 days each season, and fails entirely some seasons. But if you have plenty of forage for the present, it will do well to plant for the future, to have in your old age. None of the above named plants furnish pollen to any extent. For pollen the best thing to cultivate is white mustard sowed at intervals of 2 weeks on the same land, you will have a golden sea of bloom until freezing cold. It will bloom in 2 weeks from seed, and the seed is ripe ready to plant again in 4 weeks from planting. The seed are valuable and ready sale. While for rich pollen, it is undoubtedly the best plant that grows, and yields on fair days a goodly quantity of golden colored honey of good flavor.

Now I will give my plan of planting for surplus honey. I would plow and harrow 20 acres of rich land in the fall of the year, and sow it thickly with figwort, motherwort and catnip mixed in equal quantities, and then harrow or brush it in lightly, then I would go to the forest and procure enough basswood, whitewood and poplar bushes 3 or 4 years old, to plant the same land 30 feet apart each way, either in the fall or spring. The shade of the trees is a benefit to fig and motherwort the second year. I would start my apiary with 150 colonies near by, and, as the forage spread and increased as it will do, I would increase the number of colonies very early in the spring. Each season I would scatter white mustard seed all over the 20 acres for early pollen, and to stimulate brood rearing, which it will do to perfection. In about 2 weeks from first sowing of mustard, I would sow again. Both crops will be ripe and gone, before the other plants are ready to bloom, and the seed, if saved nicely, will bring nearly as much as an average crop of wheat. The mustard will keep the ground shaded and moist, and be an advantage to the after crop of honey plants. Besides all this, we will get the benefit of clover and all natural forage just the same as we do now. I would increase outside forage at the same time, by seeding all the road sides and rough places with melilot. But I would keep it out of my cultivated fig and motherwort field.

Bee-men beginning to see the importance of planting for surplus, we can sell seed enough each year to defray all expenses of 20 acres of land, and still seed enough will fall on the ground to supply all the vacant spaces; then in 7 or 8 years our basswood and poplar will begin to bloom. Then with all these advantages of forage and proper management of the apiary, we would astonish the world with our surplus honey report. Even G. M. Doolittle would begin to crawl down from his high pinacle of fame, and wonder at our success. We at once see that all this is practical, and that, too, at a trifling cost, when compared with the advantages gained, especially to those who are so fortunate as to live in the country, or own a little land; us who live in town, and own no land near by, cannot do so well. But even then we can greatly improve our forage. We can procure a few seeds of the above named plants growing wild, and transplant them somewhere handy, where we can save all the seed each year, and then every time we take a little jaunt around the neighborhood, we can scatter a few seed in every available spot, and soon it begins to spread from seed falling, and greatly facilitates our chances for surplus honey, without damaging any person. Another thing we ought to do, is to not only plant in range of our own bees, but outside of their range for other people's bees. This keeps their bees off of our bee-range, and we are the gainer of the forage in that way.

There are many other plants not named above, that we might work to good advantage, such as peppermint along wet, low places. Buckwheat, in some localities, pays well to cultivate. It does no good in this locality very often. Spider plant, cleome and mignonette I have not tested, but suppose from reports it will pay to cultivate them. There is an aster called the "last rose of summer" that is beautiful on lawns, and is a most excellent honey producer late in the fall. Raspberries are fine forage for bees, and also for humanity, and should be cultivated largely for both. I might picture out many practical plans for beautiful lawns of honey producers, but it would be too tedious for this occasion. In conclusion, let me say that it would be well for us to exchange seeds with those who have something that we have not, and we have what they have not; variety is the spice of life. Now let us ever remember this one thing, that to make money out of honey, we must have good forage, and if we do not have it naturally, we must make it.

On motion, adjourned till 9 a. m.

MORNING SESSION, OCT. 7.

Mrs. Harrison, Ill., offered the following resolution, which was adopted:

Resolved, That the President and Secretary be empowered to issue life-membership certificates to all bee-keepers they may approve, upon the reception of a fee of $10 for such membership, without further annual dues.

Dr. J. P. H. Brown, Ga., offered the following, which was adopted:

Resolved, That the Vice Presidents be especially instructed to appoint suitable persons in the prominent towns of their respective States to encourage exhibits of honey, bees, etc., at the local fairs, and to secure the offering of suitable premiums for the same.

The following was adopted:

Resolved, That a committee be appointed to prepare a pamphlet containing statistics of the honey crop, and general information about exhibits of bees, honey and apicultural implements at fairs and expositions, and advice about the best way of conducting the same; said pamphlets .to be supplied to the Vice Presidents and others, and that the committee have power to draw on the Treasurer of this Society for all necessary expenses.

The President appointed the following gentlemen said committee: T. G. Newman, Ill.; C. F. Muth, Ohio; Dr. J. P. H. Brown, Ga.; D. A. Jones, Ontario, and Dr. L. E. Brown, Ky.

The following paper was read from D. A. Pike, Smithsburg, Md., giving

The History of the Albino Bee.

Late in the fall of 1873 I reared a queen from a colony of Italian bees, and allowed her to remain with the colony until the spring of 1874, when I noticed that one-half of her worker progeny were very nicely marked Italian bees, the other half being marked in the following manner: About the eyes they approach nearer a purple than the Italians; beginning at the waist they first have three distinct yellow bands, then three distinct white bands; the white is pure, not muddy or dirty; the wings are finer, and of a bright silvery color; their shoulders and the under part of the abdomen is very thickly coated with white hair; the queens are very prolific. As soon as I noticed them I began to breed them out, using the greatest care, so as to get them pure if possible. I removed them from my own colonies to a place where they were not likely to come in contact with other bees. I kept them there until they reproduced themselves with all the markings of the pure albino, watching them very closely, and examining them carefully until I no longer found any Italian bees among them, or any bees bearing any other mark than those of the albino. Then I considered that I had them in their purity, and that they would not breed back to the Italian bees.

I have tested them as to their merits, and have placed them in competition with the Italian and Syrian bees, all having about the same pasturage, and find that they gather more honey, are more gentle to handle, and stick closer to the combs than any other bees. The queens and workers are the handsomest bees I ever saw. I have given them a severe test, in order that I might feel safe in guaranteeing them to the public, and in order to see whether they were a distinct race or not. My observations have led me to the results mentioned above, and I do not hesitate to give them the first rank in the bee world. I believe that they are the coming bee.

The following paper, from W. J. Davis, Youngsville, Pa., was read:

Bee-Keeping as a means of Support.

For ages the honey bee has been the servant of man, yielding the product of its labors for his use and pleasure. Until about the middle of the present century, the home of the bee was the abode of mystery, and whether that home was constructed of straw, clay or wood, around it gathered superstitions thick and strong. The discoveries of Dr. Dzierzon, of Germany, and our own honored Rev. Langstroth, have solved the mysteries and dispelled superstitions, so that the apiarist of to-day may know with certainty just the condition of his colonies at all times, and generally able to correct all that is wrong.

In 1846, bee-keeping in Germany was declared to be of no importance in rural economy. From 1850 to 1855, the staid old Germans began to open their eyes at the announcement that Dr. Dzierzon realized a profit of from 30 to 50 per cent. on the capital invested. And now in our own country from 100 to 500 per cent. on the amount invested is not an uncommon yield. The use of honey and wax extractors, and the manufacture and use of comb foundation, the importation and improvement of the Italian bee are all things of the immediate past.

From the light of the past and present, we ask what is the prospect of bee-keeping as a business, or the sole vocation of an individual. The first question to be decided is, "will it pay?" This must be determined by "the man and the location." It is not the province of this essay to speak of the wealthy amateur, or the scientist, who keeps bees alone for the pleasure or knowledge derived, nor yet of the farmer or mechanic, who keeps a few colonies simply to supply his own table with choice dishes of honey, but as a source of revenue. Neither will I take the liberty to array the names of the honey producers of the United States and Canada, who have made bee-keeping a financial success. But to the young man, about starting in business for himself, we will say that bee-keeping presents brighter prospects of success, than it has in the past.

Scientific bee-keeping as a business, is both a profession and a trade. It pays no especial homage to any of the learned professions. The apiarist deals with, and studies the great forces of nature. He sees in a marked degree the importance of the early and the later rain, and the bright warm sunshine at particular times, hence becomes a climatologist; of necessity he takes up the sciences. He studies into the intricacies of animal life. He becomes, in time, a botanist. Philosophy is brought into use in the proper ventilation of his hives, and in the construction of winter repositories. He observes the difference in soils for the yield of nectar from a particular bloom, and the effect of altitude in the quality, as well as quantity of honey secured.

To engage in bee-keeping as a business, it is necessary to understand the nature and wants of the honey bee, and a knowledge of their management. This may be obtained in theory, by a study (not merely a reading) of all the standard works extant, and journals devoted to the science of bee culture. Add to this the practical use of the knowledge obtained in some large apiary for a year or two, if possible, and then you will be prepared to look for a location (as the young M. D. would say), "Do not try to build up by crowding out some one already established; there is room enough for all the bee-keepers of the United States for some time to come."

If surplus honey be the object sought, get the very best unoccupied field, if possible, where soft maple, red raspberry, white clover and basswood abound, without special reference to railroad facilities. If the rearing and sale of superior colonies and queens be the object in view, mail and railroad facilities are very important.

Thus armed and equipped as the law directs, a few hundred dollars may be invested in bees, with better prospect of satisfactory returns, than an equal amount in almost any other direction. One hundred dollars invested in an old horse is thought to be a small matter, but $100 invested in one purchase of bees, would be thought by some to be extravagant. The horse may turn his heels to the sun on five minutes' notice, and his late owner, if very saving, might estimate the value of shoes and hide; but the man who invests $100 in bees, is expected to become a "bloated bond holder" in 3 or 4 years, or "bees are no good."

It is true, we are like the farmer, met by unfavorable seasons. Drouth or excessive rains sometimes blast the hopes of the apiarist. In this locality (N. W. Penn.), in the summer of 1871, during the blooming of white clover in June, the weather was cold, dry and windy. But little honey was secured in the flowers under such circumstances, and the entire summer proved alike honeyless, and in early autumn I reduced my apiary from 130 to 50 colonies, in order to put them on a safe winter footing. A few were doubled, but I killed and buried bushels of bees, saving their combs clean and nice for further use. A similar state of things has occured 3 or 4 times in my experience of 35 years, but let us see how other people are sometimes effected in seasons of frost and drouth. I have known dairymen to sell good cows at $5.00 each, on account of the prospective scarcity of hay. It will be readily seen that farmers suffer even heavier losses than the bee-keeper by unfavorable seasons.

Any person possessed of conscientious qualms against the killing of one, or many colonies of bees in autumns or unpropitious honey seasons, had better never engage in bee-keeping as a business. The keeping or killing must be altogether a matter of dollars and cents. If in 100 colonies in the fall, there be only sufficient stores for the safe wintering of 50, it is a question which will pay better, reduce the number to 50, or purchase food for 100. It will depend much on circumstances, and the market value of the colonies in the spring. My own experience leads me to the belief that in a large majority of cases, it pays best to reduce the number of colonies, the hives and nice clean combs being being worth in the spring, nearly as much in the hands of the skilled apiarist, as colonies will sell for. The heavy losses sustained last winter are discouraging, it is true. It is also true that such losses are more speedily regained than with any other stock. While absolute safety in the possession of property is not the inheritance of man, the bee-keeper may feel quite as secure as those engaged in any other industrial pursuit.

Youngsville, Pa.

T. G. Newman being called for, addressed the Convention as follows, on the

Stepping-Stones toward Perfection.

This subject is one of immense magnitude, and I must content myself with the merest outline of thought, allowing those present to fill out the figure, and dress it up to suit their fancy.

Scientific apiculture in its fullness and perfection stands out to view as a great mountain, whose sides apparently forbade the approach of man, but whose top presented tantalizing to view the beauty of perfection, the sublimity of the complete control of the honey bee, and the full development of scientific management of the apiary—a "land flowing with milk and honey," furnishing God-given sweetness to all the nations of the world as a staple product, with a commercial value like butter, cheese, and sugar.

How to ascend this mountain and plant our feet upon its glorious summit is the all-important question. Talk not to me of impossibilities—my faith in the ultimate triumph of scientific apiculture is progressive; it

> "Laughs at impossibilities,
> And cries—*It shall be done.*"

When Frederick Winslow proposed, less than 100 years ago to light London with gas, James Watt, Walter Scott and other great men laughed at the idea, but see today the wonderful illumination of ten thousand times ten thousand cities with gas!

When Fulton proposed to run a steam boat up the Hudson River, men scoffed at the idea, but the millions of steam boat palaces and drawing-room cars drawn by ponderous engines over land and ocean, demonstrates grand accomplishments for steam.

The electric light, so much ridiculed for years, now rivals the sun, and pales the very moon and stars with its brilliance!

In the misty ages of the past, the grand "mount of transfiguration" we have just caught a glimpse of, was enveloped in clouds and thick darkness; the ancients saw apiculture only in its crude state; "this treasure they had in earthern vessels" in the time of Abraham and Samson. Greek and Roman poets and sages caught only a glimpse of the glorious fruition, and then the world went into the depths of mire. Ignorance and superstition reigned supreme, until the days of Huber, Bevan, Dzierzon and Berlepsch, who cleared away much of the rubbish around the base of the mountain—laying bare the rock on which to build the mighty stairway leading to its glorious summit.

Thereon was built the first step by that intellectual giant whose name every true American honors—the Rev. L. L. Langstroth. The step consisted in adapting the movable-comb principle to his bee hive, revealing the "mysteries" therein and revolutionizing old theories.

Then, with great rapidity, step after step was built. In order to fully record this great rival to "Jacob's ladder," let us number and describe each step, so that the "generations yet unborn" may treasure up in history every step in the grand stairway, reared by the men of our days by indomitable energy and inventive genius.

Step No. 2 consisted in the multiplication of bee books and bee papers, scattering information like autumn leaves, awakening scientific investigation and inviting inventions to aid in the scientific management of the apiary.

Step No. 3 called the bee lovers together in conventions, developing the best thoughts, and the most advanced ideas of those devoted to this industry.

Step No. 4 was the importation of Italian bees, placing the possibilities of improvement within our grasp.

Step No. 5 showed us how to Italianize our apiaries, rear and ship the new bees, and thus spread them all over the continent.

Step No. 6 taught the increase of colonies by division, instead of swarming.

Step No. 7 brought to our astonished view the possibilities of making a staple article of honey, giving us the honey extractor by which to obtain the honey by centrifigal force.

Step No. 8 gave us the means of uncapping the combs before extracting the honey, and saving them for future use by the aid of an uncapping knife.

Step No. 9 reassured our nerves by giving us a bellows-smoker, with which to control the bees during our manipulation of them, without danger of being stung.

Step No. 10 presented to our astonished vision sheets of wax, afterwards corrugated and called "comb foundation," to aid the bees in multiplying their numbers and obtaining large yields of honey, by providing room to receive the sweet nectar in the shortest period of time, as well as to control the production of drones.

Step No. 11 gave us magnificently thin comb foundation, to be used in comb honey, giving it strength to endure transportation, and aid in its production.

Step No. 12, presented us with single comb sections to facilitate the building of straight combs, and add to their beauty, facilitate their division, and increase their market value.

Step No. 13, showed us how to improve the race of bees by constant selection and experiments, breeding IN the traits of character desired, or breeding OUT the undesirable ones.

Step No. 14 consisted In popularizing the consumption of honey, and creating a demand for it among the masses.

Step No. 15, sought out a foreign outlet for honey, thereby creating a valuable market for all our surplus crops.

Step No. 16, gave us many improvements in marketing jars, cans, kegs, sections, crates, etc., thereby adding to the value of the bee interests.

Step No. 17, developed shows for bees and honey, presented an opportunity for good natured rivalry, and raised the standard of the "ideal."

Step No. 18 consisted in planting for honey bloom, to give a continuous yield of nectar for our bees to gather, from early in the spring till late in the fall.

Step No. 19 showed us how to make honey a staple article—giving market quotations, estimating the crops and regulating the prices for it all over the country.

Step No. 20. This consists in the development of practical plans for wintering our bees.

This is the "next progressive step"—the last problem to be solved, but profound thoughts of the wise, and the patient experiments of practical men will speedily accomplish it.

From the place we occupy, we catch, now and then, a glimpse of the glorious fulfillment of all our expectations!

> "Oh! the transporting, rapturous scene,
> That rises to our sight!
> *Sweet* fields arrayed in living green,
> And rivers of delight!
> There generous *bloom* in all the dales
> And mountain sides will grow,
> There rocks and hills, and brooks and vales
> With milk and *honey* flow."

Is there anything to discourage us in our work? No; all looks encouraging. With steady hands and iron nerves, let us near the top stone in the "grand stairway," completing our work, and giving us the possession of that for which we have so long wrought. And while we place in proper position "the cap stone" of the grand structure, let the wondering and admiring people rejoice with greatest joy!

On motion, a rising vote of thanks was tendered Mr. Newman for his able address.

Dr. J. P. H. Brown, of Augusta, Ga., gave an interesting address on the different races of the honey bee, and their geographical distribution. On motion, the thanks of the Convention were tendered Dr. Brown for his very able paper. [Owing to the length of this treatise, we must postpone its publication until next week.—ED.]

T. F. Bingham, Abronia, Mich., addressed the Convention on the sublect of inventions, as follows:

A Partial Review.

"Honor to whom honor is due!"

It is well in looking back from our advanced standpoint of apiculture, to observe wherein we have profited, and in what respect the present American system of bee-keeping differs from that of the past, and to whom most indebted.

The system I have denominated the American, is the substitution of absolute control, for the "happy-go-lucky" methods previously pursued. The early writings of the lamented M. Quinby, called the "Mysteries of Bee-Keeping," which were among the most conspicuous of the closing era, may be appropriately called its closing chapter; while the writings of the Rev. L. L. Langstroth, and the invention of the movable comb hive, may be justly called the opening chapter in improved bee-culture, and the foundation of the American system.

Do I assume too much in saying that nearly all we have of present value rests on one single corner-stone, hewn and perfected by one master hand, whose surpassing genius, experience and practical application, have shown him the master builder, on whose single invention the vast present and the undreamed future of American apiculture rests?

Has not the fact come home to every practical bee-keeper in this honorable body, time and again, that amid the thousand changes and struggles to improve and surpass the first and original, or movable-comb bee hive, not one outlived the legal limit of the original Langstroth patent? To illustrate, allow me here to quote a few sentences from the covers of back-numbers of a leading American bee paper:

> While I earnestly try to maintain a broad "charity for all, and malice toward none," and while I do not wish to take upon myself the responsibility of dictating a course for others, I feel it a duty to discourage with all my might, both by precept and example, everything in the shape of patented bee hives, or patents on anything pertaining to bee-culture. On the other hand, I shall try to encourage every one to do all in his power to advance the common good of all. I do not believe the world "selfish and grasping," but have much confidence in the disposition of our people to pay for everything they get, and to reward those who work for them disinterestedly, when they once get a clear understanding of the matter. If you have made a valuable invention or discovery, give it to the people, rejoicing that you have been enabled to contribute your mite to the common good, and in seeing others happy, and sooner or later you will surely have your reward. *Nothing that we manufacture, in the shape of hives and implements, is patented.*
>
> I recommend the Langstroth frame for everybody, and for every purpose whatever, in preference to anything else, and I have pretty thoroughly experimented with all shapes and sizes. There may be other forms that will give just as good results, but I do not believe there are any better. For all general purposes, I advise the Simplicity hive, holding ten of the above frames. The Simplicity (or Improved and Simplified Langstroth hive) is not patented, and never will be.

Permit me here to ask, if the leading bee-keepers of America are opposed to patents? and if so, what method they have devised to encourage invention and render unnecessary the methods devised by Congress? Is it of any value to bee-keepers of to-day, or the bee-keepers of the future, that the memory of the inventor of the movable-comb bee hive, and the honey extractor, and comb foundation, should be revered and perpetuated? Or is there no duty or Interest except to get more honey and higher prices, and cheap supplies at cheaper prices?

I assume, in the absence of any other plan of encouragement and protection than that devised by our forefathers as a just tribute to worthy invention, that the American people do respect and honor not only the inventors, but the inventions and the legal record of them in the United States Patent Office. One of the publishers of a bee paper stated in his publication, that "any man who did not take legal steps to establish the fact of his invention, should not complain because of the indifference of others." Is it not to the interest of every practical bee-keeper, and to the interest of this the most national exponent of American apiculture, to put itself on record as the guardian and patron of valuable and original first inventions?

Do American bee-keepers expect too much of this more than national body, in presuming that it shall carefully weigh not only the causes of success and failure, but that it shall lift up its voice in commendation of every worthy and practical invention, while it speaks in no uncertain tones its disapproval of the substantial copying, without invention or improvement, of the worthy inventions of others?

Does not every practical bee-keeper know that if the public could have been kept from buying worthless imitations of the Langstroth or movable-comb bee hive, that hundreds of thousands of dollars would have been saved to innocent bee-keepers, and that our most noble and worthy L. L. Langstroth would not only have received his well-earned honors, but his just rewards?

President Cook paid a glowing and eloquent tribute to the Rev. L. L. Langstroth, the inventor of the movable frame hive.

Dr. L. E. Brown, Kentucky, moved that the sentiments expressed by Mr. Bingham be indorsed as the views of this Convention, which motion was seconded.

Dr. Parmly, D. A. Jones, Pres. Cook, and many others supported the motion, which was carried with great unanimity.

C. F. Muth, Ohio, read the following letter, which he had just received:

Oxford, O., Oct. 5, 1881.

Dear Friend:—I am very sorry that I could not be with you at the Convention—but I grow worse instead of better.

In this week's AMERICAN BEE JOURNAL there is a strange mistake about a hive sent from Greece to Mr. R. Colvin. It is a regular Berlepsch hive, and contained a Grecian colony, which died on the passage. Mr. Colvin did not keep bees until some years after my patent issued, and this Berlepsch hive did not reach him until some time after he had imported Italian bees. These facts are enough to show how greatly mistaken Mr. Robinson is in this matter.

L. L. LANGSTROTH.

Mrs. L. Harrison, Peoria, Ill., contributed a paper which was much applauded, entitled

Suitable Employment for Women.

Bee-keeping, although a laborous employment, demands no great outlay of strength, at one time. It embraces the performance of many little items, which require skill and gentleness, more than muscle. The hand of woman from nature, habit and education, has acquired an ease of motion, which is agreeable to the sensibilities of bees, and her breath is seldom obnoxious to their olfactories, by reason of tobacco or beer.

Women have demonstrated, that the making of hives and surplus boxes is no objection, as they have purchased them in the flat, nailed and painted them. The hiving of swarms is neither more difficult nor dangerous, than the washing of windows or milking. The right time to extract honey, or to put on, or take off surplus boxes, requires no more tact or skill to determine, than the proper fermentation of bread, or the right temperature of the oven required for baking. She is in her allotted sphere while raising queens and nursing weak colonies, or caring for the honey when off the hive.

The most powerful argument in view of the suitableness of bee-keeping for women is this: That it is something she can do at home, and not interfere with her domestic duties. Many women of small means have young children depending upon their exertions for support, and remunerative work to be performed at home, brings very little in the market of to-day. For instance, the making of overalls at 5 cents a pair, and shirts at 50 cts. per doz. She is compelled to accept less pay than men, for the same service performed. We had a friend, chosen as principal of a school on account of her efficiency, but was compelled to accept lower wages than her predecessor, who was a man, and dismissed for his incompetency. But we have never found a dealer unscrupulous enough to offer less for a pound of honey, because it was produced by a woman.

T. G. Newman, Ill., expressed himself as fully in accord with the views so concisely and ably expressed by Mrs. Harrison. The paper was a model in this respect.

C. F. Muth, Cincinnati, Ohio, addressed the Convention as follows on

Foul Brood Among Bees.

C. Bertram, of Hanover, Germany, publishes the following essay in regard to diseases of bees, heading his article "Foul Brood or Chilling," and tells how foul brood made its appearance in his apiary in the fall, after the days begun to be cold. Remembering Mr. Hilbert's remedy, salicylic acid, he mixed some of it with honey and fed it, when he was surprised to see many of his bees flying out and dying outside of their hives. He then went to the druggist to ascertain for what purpose salicylic acid was generally used, when he was told, principally to keep canned fruit. He tasted of the acid, which made him cough violently. Having a heavy cold at the time, it relieved him, however, a made him feel better. Now, Mr. Bertra reasons thus : Salicylic acid destroys fugus or germs of souring in fruit and dissolves and loosens slime secretions in our body. He claims it has a beneficial effect on our nervous system, and shows to the physician the degree of a cold or overheating in a patient. He says the disease can be prevented by a timely use of medicine. He dusted over his brood combs the raw pulverized salicylic acid—repeated it several times, and his infected colony was cured of foul brood in the fall. His other colonies had taken the disease, and commenced to carry out dead larvæ, but a good dusting with the acid cured them all. The following season he made the same observation, brood became chilled and died, but before foul brood had made any headway, he applied the acid and cured the affected colonies. Mr. Bertram's resume is that chilling is the cause of foul brood, and that the application of the proper medicine in time, prevents the contagion.

Mr. Bertram says that May disease makes its appearance in spring, and is apparently caused by over exertion. The muscles of the wings became over taxed and lame, and he gives salicylic acid as a good remedy for it. For the benefit of our German-reading friends, I recommend the original lengthy document.

Enthusiasm, so essential to success in every business, appears to be especially the characteristic of the successful bee-keeper, and to him does the old saying, "no roses without thorns" particularily apply. Sharper than a thorn, or even a bee sting, is the discovery by him of foul brood among his bees.

There is, also, not a more social nor confiding class of men than bee-keepers. They will tell you all they know about their pets, and, as a friend remarked, "different from other fanciers, they will tell a little more, if any." Against this enthusiastic "little more" we have to guard occasionally, and exercise our own judgment all the time and in everything.

Perhaps no keener disappointment could occur to a bee-keeper than the discovery of foul brood in his apiary. I mean the contagious disease which is called "foul brood," the origin of which is not known, as yet, to any one of us, further than that it is imported from Europe, where it exists to a large extent, and where a bee-keeper gets it from another apparently without a cause, who then ascribes it to a something as chilling or starving of brood, when, in fact, the sole agent was a visiting bee from a hive 2 or 3 miles off, or some visiting drones coming in with the fungus on their feet. I do not mean the dead brood we often find in the cells decayed and creating a stench, and which is removed as the colony gets stronger, when the old combs, cleaned out by the bees and again used for rearing of brood and storing of honey, remain as good as any. Every bee-keeper of only limited experience can make himself acquainted with this innocent disease, which is often brought on by a cold night in spring, when the bees are forced by the instinct of self-preservation to draw up into a more compact cluster, exposing thereby part of their brood. The so exposed brood chills, dies, decays, and is then removed as stated above. No particular harm is done, only that perhaps a superficial observer is made to feel very comfortable on the disappearance of foul brood (?) in his apiary. "The poorer the season, the more foul brood, the better the season, the less foul brood," said, very innocently, one of our brethren not long since in the BEE JOURNAL.

It is a consoling feature, indeed, to observe from their expressions that a large number of our good bee-keepers who know, as yet, nothing of this dread disease, that contagious foul brood does not prevail to any very great extent. It shows, also, that we have a chance yet of mastering the malady, if we mean business.

On a former occasion, I attempted to state the difference between the "real" foul brood and this "harmless" foul brood, as it may be called, and that the former is by no means a result of the latter. I had ample proof to justify my assertion, and so stated it (see BEE JOURNAL, page 502, November, 1879). If I ever doubted my conviction, I had the best chance of thoroughly testing the matter again this summer.

Several lots of bees sent me last spring from friends in the South, arrived here in bad condition. Some colonies had all the brood smothered in every frame, which looked in capped and uncapped cells, so much like the real foul brood that it came near deceiving me. It had the shape and about the color, but removing the decayed larva with a pin, it pulled out complete. It had a skin around it, unlike the larva killed by the contagion, in which the skin decays almost at the same time with the body. Satisfied that no trouble would arise, and in order to test the matter more thoroughly, I filled a number of second stories of strong colonies with these frames of decaying brood. Friends came to see me, and, walking down between two rows of hives, one remarked : "What stench is that?" "It comes from that hive," said the other, extending his nostrils, and stooping down to one of those hives prepared by me. At my request to see if they could scent another hive of that sort, they succeeded. So strong an emission I had never observed from a hive containing the real foul brood. However, my combs were cleaned a few days afterwards and used again for brood-rearing and honey-storing, with the same safety as any.

If you observe closely this harmless, perished brood, it will not take you long to tell the difference between it and the real, or malignant foul brood. I think it necessary to describe it as thorough as possible, no matter if I do differ with the majority of our brethren or not, who appear to think that they know something about the matter. They may be convinced of their error before they know, and it is my object here to put you on your guard, as "I came through the mill," which gave me not a little labor and expense.

You will remember that I had cured last year a number of hives afflicted with the disease, and my apiary was clear of it in the fall. I was generally prompt in disinfecting every infected and emptied hive before I left it, but one. It was left near a window with the entrance closed, ready to be disinfected at some leisure hour, and forgotten.

Last spring I was coming past the hive and found a large number of my bees around and in the same. The entrance-block had been removed accidentally, and the scent of the hive had drawn on the bees, which were without any forage at the time. The hive was shut up and the bees inside starved to death, knowing that those which had returned to their hives already had taken home with them the bacteria, causing foul brood, and I was bound to let no more bees escape. It proved as I had expected it would. A few days afterwards, I found in several combs of weak colonies a few larvæ killed by the fungus carried in on the feet of the bees coming from the infected hive. The larvæ had already turned into a brownish mass with unmistakable signs of the disease, but apparently not far enough advanced to have thrown out bacteria or spores. I cut out those infected cells, gave all the combs a good sprinkling of salicylic acid with the atomizer, and no signs of the disease were noticed afterwards. Two full frames of brood from another hive where diseased larvæ were more numerous were burned, which, with a good sprinkling, saved the colony. Three very strong colonies, however, had so many cells with diseased larvæ that I should have been sure to have overlooked some, had I attempted to treat them as I did those weak colonies mentioned above. A radical measure was necessary. Consequently, I brushed all the bees from their combs into comb foundation, and fed them with the salicylic acid as described at our last year's meeting in Cincinnati, which has proved successful in every instance, and to which I have no improvement to make to-day. See BEE JOURNAL, page 534, November, 1880.

It being unpleasant and without a benefit to the average reader to repeat matters so often, I refer interested parties to the respective pages of the BEE JOURNAL as stated above, or to my little pamphlet, "Practical Hints to Bee-Keepers," containing full particulars in regard to the disease, with other interesting matter, which I will mail to anyone for 10 cts., the expense of publishing and postage.

Dr. E. Parmly, N. Y., offered the following, which was adopted :

Resolved, That the thanks of this Convention are tendered Mr. D. A. Jones, of Ontario, for the valuable information he has so freely imparted, and the interest he has awakened in the present and former meetings by giving his experience and views on so large a range of topics.

Rev. L. Johnson paid an eloquent tribute to the Convention.

J. C. Peden extended an invitation to the members to visit him at his home in Lawrenceburg, Ky.

Judge Andrews addressed the Convention on fall honey in Texas.

A communication from E. E. Hasty on "The origin of our present races of bees," was read.

[We are compelled to postpone the publication of this article for want of space.]

A communication was read from C. H. Lake, Baltimore, Md., describing his "old reliable" bee hive, now on exhibition.

Dr. Dillard, of Lexington, Ky., was invited to address the Convention. The Doctor, in response, said he was not now engaged in bee-keeping, but anticipated he would be again, as he did not know how he could get along without them.

The committee on exhibits made the following report :

C. F. Muth, Cincinnati, Ohio, shows two fine all-metal honey extractors of his own manufacture, which for style and workmanship appear to be very complete.

J. M. Davis, Springhill, Tenn., shows a honey carriage, which is so perfect in all its parts that any bee-keeper who runs for extracted honey cannot afford to do without it.

Charles H. Lake, Baltimore, Md., shows his Old Reliable double-wall hive, accompanied by an explanatory letter.

C. H. Deane, Mortonsville, Ky., shows the Star Chaff hive, so perfectly arranged in all its parts that no one can fail to be struck with its wonderful completeness ; also a division board and feeder combined ; he also shows a new feature in connection with section-storing, which surpasses anything of the kind in connection with a Langstroth hive, either one or two stories ; the case holding the sections has no top bar, and they are so arranged that they can be tiered up either in the top story or in the body of the hive, and combines all the necessary arrangements simple and complete.

Mrs. Frances A. Dunham, Depere, Wis., exhibits one of her celebrated comb foundation machines.

T. F. Bingham shows a fine display of his unrivalled smokers ; also some of the Bingham & Hetherington uncapping knives.

J. M. C. Taylor, Lewistown, Md., shows a very fine Italian queen ; also a beautiful albino queen with handsome bees.

D. A. Pike, Smithsburg, Md., exhibits some handsome Italian and albino bees, also a Syrian queen mated with an albino drone.

Dr. J. P. H. Brown, Augusta, Ga., shows some beautiful Cyprian and Syrian bees ; also some crosses between Cyprians, Cyrians and Italians, proving clearly that he exercises great care in breeding.

D. A. Jones, Beeton, Ont., exhibits four fine Syrian and five Cyprian queens ; also two Italians crossed with Cyprian and Syrian drones on his bee islands.

T. G. Newman shows the fifth edition of "Cook's Manual of the Apiary," revised and improved, containing invaluable information for the bee-keeper, whether novice, amateur or specialist ; none can afford to do without it. Also, the AMERICAN BEE JOURNAL in its proposed new form for 1882, which is the only weekly bee paper in the world, devoted exclusively to bees and honey. It should be a welcome visitor to every lover of bees. Mr. Newman also exhibits "Bee-Culture," of which book he is the author ; also "Extracted Honey," by Chas. & C. P. Dadant.

G. W. Demaree, Christiansburg, Ky., shows a very excellent feeder, also an ingenious invention for leading bees out of the honey house.

C. F. Muth, Cincinnati, O., exhibits one of the safest and most valuable shipping queen cages yet brought before the public.

C. H. Lake, Baltimore, Md., has on exhibition a Dzierzon-Berlepsch bee-hive, which was presented by King Otto, of Greece, to Mr. R. Colvin.

A. C. Cunningham, Salvisa, Ky., shows a number of packages of honey in glass, which are very attractive. No one can fail to be struck with the superiority of his honey, it being so thick and delicious that Kentucky honey in the future must take a front rank in the market, both as to quality and price.

Dr. N. P. Allen presents a number of samples of comb foundation of various thicknesses, adapted to different uses in the hive, all superior of its kind both as to color and purity of material, mostly made on the machine invented by Mrs. F. A. Dunham, Depere, Wis., and forwarded to the Convention by Chas. & C. P. Dadant, of Hamilton, Ill.

The *Bee-Keepers' Instructor*, the *New England Bee Journal and Home Gazette*, and the *Bee Keepers' Magazine*, all of which are valuable aids to bee-keepers, are on exhibition.

On motion, the report was adopted and the committee discharged.

An article was read from Rev. A. Salisbury, entitled,

Cyprian Bees.

After an experience of one year, I must say I am pleased with the Cyprian bee. The attachment springs from no selfish motive, but from a strong conviction that the merits of the race will warrant the estimate. Their beauty is equal to, and will probably excel that of our most beautiful Italians, and the beauty of the latter is never marred by a blood relationship with the former, but rather augmented.

They are good workers, active and industrious, and I am laboring under the conviction that they carry more honey in their sacks than the Italians. My opinion is based on the admitted fact that they are less in size than the Italians when not gathering honey, but when their sacs are filled they compare in size with their rivals.

As a race the queens are evidently possessed of more fecundity than Italian queens. In all great enterprises to be accomplished in a given time, the work is done by the multitude, and not the discouraged few. While white clover continues to bloom so early in some localities, commencing the latter part of May, very few colonies of Italians are up with the times for storing in the boxes at the opening of the harvest, so a loss occurs in getting the first clover honey in boxes, for the want of bees to fill them from bottom to top. Cyprians, with anything of a chance, will be up with the season, and by the thousands will sip the sweet nectar from the snowy fields, and rushing homeward pell-mell, their nervous muscles instinctively move them up-stairs to unburden the heavy load.

It is true, the pure Cyprians are more nervous and easily irritated than the pure Italians, but are not disposed to provoke an attack, but to resent an insult. Most colonies can be manipulated without trouble. They are like all other families of the animal kingdom, they vary in disposition, even as do our own children nursed by the same mother. Yet it is sometimes true, the most irritable member of the family is possessed of more good qualities than all the balance of the household. Little difficulty need occur with the skillful apiarist in running for box honey, but more difficulty is experienced where all the honey is to be extracted.

The bees from a Cyprian mother mated with a pure Italian drone, are large, beautiful, active and quiet, and if bred up to a pure race, I am not positive we might not christen them "Apis Americana," But we will refrain until we get the length of the tongue. Whether the mixing of the races will produce like results remains to be determined, but if not, all the drone combs should be congregated in the hives occupied by Italian queens, and the victory is surely gained. I prophesy ten years will not have passed before those now ready to discard the new races will change their opinions, and not hastily exclude all foreign blood.

D. A. Jones, Ontario, thinks a profitable business can be transacted by Southern breeders and others, in breeding choice drones and selling to queen breeders, especially by shipping North.

Dr. J. P. H. Brown inquired of Mr. Jones what experience he had in shipping drones.

M. Jones answered he practiced the method in interchanging drones between his apiaries and bee islands. By the use of his perforated metal entrance, drones not desired to mate with queens could be restrained in the hive.

Rev. L. Johnson addressed the Convention as follows, on

Progressive Bee-Culture– Past, Present and Prospective.

Scientific bee-culture may properly be said in this country to be confined to the last 30 years. The first bees in America were imported into Pennsylvania about the year 1627. We also have accounts of bees being brought from England to New York and Virginia about the year 1685. From that time forward they have been disseminated to every part of the United States and Canada. Until the last 20 years all these were of the German or black variety. Until 1851, they were kept in the log-gum, box-hive, or straw-skep. The hives were generally set in some out-of-the-way place, and but little attention given them, except at swarming or robbing time. The weak ones were often brimstoned in the fall, and the little honey they had was about the only surplus the owner obtained. Sometimes a cap of 20 or 30 lbs. of white honey taken from the strongest colonies, was considered quite an acquisition. The man who could protect himself in veil and gauntlets, envelop himself in smoke, and then approach a hive in early morning, burst off the top, and cut out 30 or 40 lbs. of honey, was considered quite a bee man.

Much superstition was held about bees in those days. When they swarmed, bells and pans, and everything which would make a noise were brought into use to make them settle. When a hive was sold, it must be removed at night, and the money left on the stand, or the former owner would lose his luck. When a member of the family died, some one must whisper the sad event to the bees, or they would all leave. The colony was said to be ruled by a king, whom all obeyed ; the drones were females, which laid all the eggs, and the workers were—well, only a stinger. In short, scarcely anything was known about bees, and success was attributed almost entirely to luck.

In the year 1851, the Rev. L. L. Langstroth invented the movable comb hive which bears his name. About the same time the Rev. Dr. Dzierzon, of Germany, also made a similar invention in Europe. From that time forward an entirely new era in bee-culture was inaugurated, both in the Old World and the New. Discovery after discovery in the natural history of the honey bee was made, and as truth gradually came to the light, superstition was dissipated, and instead of a "venom-tiped warrior," always ready for fight, bees were found susceptible of education and control, the same as other farm stock. Colonies were not only increased at pleasure by this system, but the bees were effectually guarded against many of their enemies, and vast stores of white honey obtained where almost none had been secured. Literature upon subjects pertaining to bee-culture, for the first time, began to assume a respectable place. The able work of Langstroth, and numerous articles from his pen, as well as from Samuel Wagner, Quinby, and many others, soon developed a desire for reading upon this subject, which resulted in establishing the AMERICAN BEE JOURNAL, and a special department devoted to bee-culture in nearly all the leading agricultural papers in the United States. The number of bee papers has been increased in this country in the last few years, until at present we have 7, one of which is weekly. Also, such able works as the "Manual of the Apiary," by Prof. A. J. Cook, "Quinby's New Bee-Keeping," by L. C. Root, "A. B. C. of Bee-Culture," by A. I. Root, and a host of smaller works by able authors.

Many other movable comb hives, besides that of Langstroth's, have been invented, each claiming some excellence over others, but the original invention still holds its own, and is adopted by a majority of the leading apiarists of America, and remains substantially as it left the hands of the great inventor 30 years ago. Most other hives are complicated, and have many useless appendages, defeating the very object for which they were invented. They look very attractive, and work nicely at a fair, or on a show table, but with a swarm of bees in them, all their movable and adjustable parts are waxed firmly together, and to loosen them jars them and makes the bees hard to control.

Improvements in receptacles for nice comb honey have been nearly as great as those of the hive. In place of the old box cap, we now have the neat and convenient prize section box with snow-white combs of honey, which may be kept in virgin beauty, and free from waste almost indefinitely. The honey extractor is a long stride in progress, which can scarcely be realized. Its numerous benefits, only those who have used one can estimate. By it, the amount of honey obtained can be more than doubled, and many difficulties in successful bee-keeping obviated, while the delicious sweet, free from wax and all foreign substances, presents to the eye and palate a treat not to be despised.

Comb foundation, among the improvements of the present day, occupies no small place. All the difficulties of crooked combs and excessive drone brood can be obviated, and the thin varieties as starters in section boxes will both increase the amount, and improve the appearance of our surplus.

We now come to the progress in the races of bees. The Italian bee was first imported and disseminated in the United States by Langstroth and others, about the year 1861. During the last 20 years their superiority over the black or German variety has been so generally acknowledged, that but little need be said. Their beauty, docility and superior working qualities are conceded by all who have tried them, and could we but keep this race pure, certainly nothing more could be desired. Recently, by the labors of D. A. Jones and Frank Benton, the Cyprian and Syrian bees have been brought to our shores. So far, but one point in progress has been made by their introduction, viz: Prolificness. Their docility and easy management over good Italians we have not seen, and their honey gathering qualities the past season have not been better than our other importations. It may be that Cyprian queens, crossed with pure Italian drones, will develop some improvement.

For the last 4 or 5 years no great progress has been made in improvements. Why is this? Have we reached perfection? Or have we made all the discoveries we can? We think not.

1. The great drawback to progressive bee-keeping with us is unsuccessful wintering. A few years ago we thought the problem was solved; but the severe losses of the past winter have convinced us we are as far from mastering the situation as ever. In the fall of 1880, there were in the United States about 3,127,000 colonies of bees. Of these (through the AMERICAN BEE JOURNAL), 521,230 colonies have been heard from; of these there was lost during the past winter, 330,012, or about 63 per cent. Taking this as an estimate of 1-6 of all, would make the entire loss about 1,980,072, which, at the low price of $5 per colony, amounts to a loss to the bee-keepers of the United States of $9,900,362. Of the different hives in use, box hives lost 88 per cent., while of frame hives the loss was 46 per cent., and of the Langstroth 42 per cent., and some deep frame hives like the Quinby, a little less. From this, we conclude if we had a frame like the Langstroth, yet so arranged that we could set the frame on end for wintering purposes, some advantages might be gained, yet this process was tried a few years ago by Mr. Alley, of Wenham, Mass., but for some reason we have never learned he abandoned it.

2. Another point for progress in the future, is fertilizing in confinement. Many plans have been tried, and in some of them success was partially attained, but so far, nothing positive has been accomplished. We would urge those interested to keep on trying. All engaged in bee-culture may make progress by diminishing the number of poor drones, and displacing queens of doubtful purity, while queen venders should send out no queens until thoroughly tested.

3. Much progress can also be made by planting and propagating honey-producing trees and plants, so that our honey harvest may both be prolonged and increased. Our extensive forests are fast disappearing, and our little pets must have their forage thus destroyed supplied by something else. All our bee books contain lists of these, and a little time and expense devoted to this work, would return to us in a fair increase of delightful sweets. It certainly is very unwise to attempt to supply any deficiency by feeding glucose or grape sugar. This miserable mixture is the fruitful source of a thousand evils among us. None will suffer more from its adulterating uses than honey producers, and we do hope that all bee-keepers will unite in the future, to drive such a curse from the land.

4. Much progress can also be made by a general knowledge of bee-culture among the people at large, both male and female. To this end, lectures should be given by those capable of public speaking, and an interest would thereby be awakened, resulting in great good. Special instruction should also be given in bee-culture in all our agricultural colleges. A business which results in a clear gain of millions of dollars, and furnishes delicious food and useful medicine to thousands, should not be neglected in these institutions. So far as we know, but one college in the United States does this, viz: the State Agricultural College, at Lansing, Mich. We need Prof. Cooks in all of them, and soon a host of young men would go forth, prepared by science and practice, the potency of whose influence would soon be manifest everywhere.

Finally, let us not be satisfied with present attainments, but realizing that "all that lives, grows," press onward. The vast field before the bee-keeper, as yet, is scarcely discovered. New truths can yet be unfolded, and loftier altitudes reached. America has given to the world the most useful inventions, the finest stock and best model government, so may we hope to produce the most delicious honey, the best race of bees, and stand forth as the reigning queen of the great universal hive.

The reverend gentleman produced quite an extensive collection of late blooming honey plants growing spontaneously in Kentucky, giving the name of each, and its value for honey-producing.

The Secretary read the following from C. J. Robinson, Richford, N. Y.:

Wintering Bees in Clamps.

The inevitable reign of Boreas is a stern ordeal that tries the nerve or patience of all bee-keepers in cold climates. Successful wintering has hitherto been a mooted problem, and perhaps ever will be, notwithstanding inventive genius has ardently sought for a solution. Success, however, is the reward of diligence and care in every undertaking. In northern latitudes bee-keeping is hazardous even with scientists who put forth their best endeavors to avert disaster. And why so? Because we have failed to acquire the knowledge requisite to afford bees suitable conditions during sieges of protracted cold. Can this state of affairs be changed for the better is the theme of this paper, and divers others of like import.

Much has been written on the subject of "wintering," yet the secret of success is with the unknown. From a perusal of the bee papers we might conclude that some bee-keepers have discovered how to winter safely after an experience of a few years, but no two of those wise philosophers agree in the mode of salvation. While those overweening didactic writers whisk the pen and bellow, "like steers in the corn," "Eureka! Eureka!" I have been unable during half a century's experience in handling bees, and studying their habits, and reading what others promulgate concerning bee-culture, to offer only a few hints in the line of progress.

Not until about 1840 did bee-keepers put their bees in cellars during winter, nor did any one practice wintering in special repositories. Since the advent of the movable-comb frame hive I have wintered weak colonies in clamps, so-called, and I have tried other repositories—the cellar, under snow, in out-house, and in warmed rooms—but no situation affords equally as good advantages as a properly constructed clamp. In a discussion, while in a convention, Prof. A. J. Cook said that "wintering in clamps is about the same as in cellars." He who attempts to reason from mere imaginary ideas, as a "rule," is totally fallible, especially he who does not proceed logically, in any wise, to arrive at a conclusion. Indeed, every old woman is aware that the condition within a cellar is totally different from that of a "hole" in the earth. Within the clamp the degree of temperature is just right and uniform, not varying one degree during winter; besides, the atmosphere is excluded from the bees, so that they repose therein in a semi-torpid state while out of the sea of oxygen—the factor that agitates life to its highest energies, when called upon by contingencies, such as piercing cold. At each change of temperature bees rouse up excitedly while confined by stress of weather, which renders their condition more and more unfavorable, until, if the confinement continues, the crisis and ending. The frequent excitements cause bees to gorge themselves with honey, and, what is worse, they glut with pollen, and then continued confinement proves fatal. Bees do not necessarily consume air to any extent, providing their conditions are such that they may lie dormant.

The secret of success, then, so far as yet known, is keeping bees during winter in a semi-existence—no consumption of oxygen, nor of food; no wear and tear of life's energies; but, similar to burrowing quadrupeds, remain quite dormant through the dire cold season. As a winter repository, I call a cellar the half-way house between summer stands and clamps.

All attempts at burrowing above ground, such as packing with straw, chaff, haydoodles, and the like, is downright fraud. Prof. A. J. Cook attempted to "protect" bees in winter in the way he would protect ice in summer; but he would be progressive, and has abandoned his whim for cheating the elements. It is well known that no degree of cold freezes a large cluster of bees; but freezing cold confines bees to one spot, not allowing the cluster to move obliquely in either direction, and if the severe cold term continues until all the food within reach of the fixed cluster is consumed, the bees starve, even though there is a large amount of stores in the hive and near at hand. It is well known, too, that very low degrees of cold penetrate through the thickest packing that can surround a hive, and the longer it will be retained after the atmosphere has changed from cold to warmer. Better for bees to remain on summer stands in their double-walled hives, in a situation where they are exposed to the sun's rays, even though the hive be all "ventilation," with an ample quantity of honey. Such conditions afford an occasional let-up for the bees to move on the combs and get a supply of honey, which could not be done where the immediate changes of atmosphere are not felt by the bees. Those bee-packers seem to possess the single idea: fence out the cold or the bees are liable to freeze. They are not aware that bees never freeze while they can feed; indeed, bees cannot be frozen while in a cluster until they have starved. Some bee-keepers provide winter quarters for their colonies in buildings, but all such repositories are alike objectionable on the same principles which condemn packing.

Concerning the winter stores for bees, I have learned that pollen is only a substitute for honey with the bees at all times and under all circumstances. Pollen does not possess a single element necessary for the use of bees or brood that is not contained in honey and pure saccharine in any form, other authorities to the contrary notwithstanding. Old bees, and those of all ages, can subsist on pollen as part of their diet when they can often discharge from the intestines; but pollen is death to bees in protracted confinement. So long as bees consume only good honey, or sugar syrup, they can remain in the hive indefinitely, almost, not needing a "fly." How is it that queen bees never leave the hive to evacuate the contents of the intestinal canal? Simply because she eats nothing but pure saccharine. This fact teaches that bees ought not to feed on pollen in winter, and bee-keepers should provide their colonies with plenty of good syrup or honey, and carefully remove as much pollen as practicable.

I waive here all discussion concerning the features of hives in which bees winter best, except to say that for wintering on summer stands the walls should be double, with a dead-air space between them. A column of dead-air surrounding the inner hive is a grand protection against the severest cold, while it is not objectionable for the reason that it retains cold like solid bodies, such as chaff, sawdust, etc.

D. A. Jones, Ontario, thinks that some of the points taken by the essayist in the above paper are untenable. Mr. Jones thinks every pound of pollen contained in the combs worth $1.00 in the spring, and he never discriminates against it in preparing for winter. He also thinks a good bee-house the best and safest receptacle for winter, and the cellar as next best.

O. O. Poppleton, Iowa, thinks the excellence of no one condition alone will insure safety in wintering bees; but that many favorable conditions are necessary to secure success. He thinks it a preventive of spring dwindling to leave hives packed till the first of May, or later if the weather is unfavorable.

Mr. Jones thinks a great error is committed, by deferring preparations for winter till too late in the season.

C. H. Deane, Mortonsville, Ky., packed his bees carefully, and had no difficulty in wintering, but a neighbor left bees standing with the second story on the hive as the season for honey closed, and they came through as safely and in as good condition as his own.

The committee on resolutions, by their chairman, C. C. Coffinberry, reported as follows:

1. *Resolved*, That this Convention feels deeply grateful to Messrs. Wm. and J. M. Williamson, and their ladies, for their great sacrifice of time, comfort and money to contribute to our pleasure and success.
2. That we cordially thank our co-laborers in Kentucky, and their ladies, for their liberal attendance and assistance in our deliberations.
3. That Mons. E. Bertrand, of Nyon, Switzerland, is tendered our thanks for recognition in his valuable paper, *Bulletin D'Apiculture*.
4. That our co-laborer, Herr H. Herbert, Meklenburg, Germany, has our congratulations on his very practical Memorandum Book for the Apiary.
5. That the various exhibits in the honey, bee, queen and implement department of this Convention have been meritorious, and have added to its interest.
6. That the hotels of Lexington, and the railroads of Kentucky, have our thanks for reduced rates.
7. That, recognizing the power of the press, the papers of Kentucky and Cincinnati, and our cherished bee periodicals, are gratefully recognized for their many courtesies.
8. That the harmony of our present session will form pleasant recollections in the long future.
9. That the officers of this Society for the past year, are entitled to our fullest thanks for their successful labors in contributing to our effectiveness as an organization, and which have culminated in this enjoyable session.

Which resolutions were adopted, and the committee discharged.

By paying $10 each, D. A. Jones and T. G. Newman became life members.

On motion, the Convention adjourned *sine die*. A. J. COOK, *President*.
EHRICK PARMLY, *Secretary*.

☞ The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee-keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States, and in order to do this, all bee-keepers should make an effort to be present. C. C. MILLER, M. D., *Pres.*
C. C. COFFINBERRY, *Sec.*

☞ The Western Michigan Bee-Keepers' Association will meet in Berlin, Ottawa, Co., Mich., Thursday, Oct. 27, 1881, in Huntley's Hall, at 10:30 a. m. All interested, are cordially invited.
WM. M. S. DODGE, *Sec.*
Coopersville, Mich., Aug. 29, 1881.

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.
N. E. FRANCE, *Sec.*, Platteville, Wis.

☞ The Michigan State Bee-Keepers' Association, will convene at Battle Creek, on Thursday, Dec. 8, 1881. We have reason to expect one of the largest and most interesting meetings we have ever held. Let all arrange to be present. All District Associations should send delegates. Each person should come with their best experience in their hands, ready to hand it over to the others of the fraternity. It is hoped that all will bring the fullest report possible from their region. Commutation rates are expected on railroads. A. J. COOK, *Pres.*
T. F. BINGHAM, *Sec.*

☞ A meeting will be held at Winterset, Iowa, on Thursday, Nov. 3, 1881, to organize a District Convention. All the apiarists of the vicinity, as well as from other States, are cordially iinvited. A. J. ADKISON.

Special Notices.

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☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

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" " **3,**—an Emerson Binder for 1882.
" " **4,**—Cook's (Bee) Manual, paper.
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☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL,
Monday, 10 a. m., Oct. 17, 1881.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@22c.

AL. H. NEWMAN, 972 W. Madison St.

CLEVELAND.

HONEY—There is a slight improvement in our market for comb honey. One pound unglassed sections find ready sale at 21c. for white, and 20c. for 2 lb. sections. Extracted honey continues dull at 10@12c.

BEESWAX—20@22c.

A. C. KENDEL, 115 Ontario Street.

NEW YORK.

HONEY.—The advices give a middling fair crop of honey. Moderate lots have arrived, but the demand so far has been very slow, and but little improvement can be expected until we have cooler weather.

We quote as follows: White comb, in small boxes, 18@20c; dark, in small boxes, 15@17c. Extracted, white, 10@11c.; dark, 7@9c.

BEESWAX.—Prime quality, 21½@23c.

THORN & CO., 11 and 13 Devoe avenue.

CINCINNATI.

HONEY—Is in good demand here now.

I quote: Good comb honey, in sections, is worth 18@20c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

BOSTON.

HONEY.—1-pound combs are a desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 21@ 22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 20@25c.—*Indianapolis Stock Review.*

SAN FRANCISCO.

HONEY—A sale of choice extracted in bbls. and cases is noted at 9¼c., and other lots in cases are offering at same figure, indicating a wavering of values in buyers' favor. Wholesale buyers emphatically refuse to take hold at extreme prices, most of them naming 8c. as a top figure.

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 9@10c.; dark and candied, 9@8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.

ST. LOUIS.

HONEY.—In fair request. Strained, 8c.; extracted, 9c.; comb, 16@18c—latter for bright.

BEESWAX—Prime yellow sells at 19@20c.

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PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX — Best light 23@25c.—*Philadelphia Merchants' Guide.*

Local Convention Directory.

1881. *Time and Place of Meeting.*

Oct. 18—Rock River Valley, at Monroe Center, Ill.
D. A. Cipperly, Sec., Monroe, Ill.
20—Union Kentucky, at Shelbyville, Ky.
G. W. Demaree, Sec., Christiansburg, Ky.
25, 26—Northwestern District, at Chicago, Ill.
C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.
Dec. 8—Michigan State, at Battle Creek, Mich.
T. F. Bingham, Sec., Abronia, Mich.
1882.
Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

◆

Badges.—Bee-keepers going to fairs should wear a badge with a gold bee on it. It will serve to introduce him to other bee men. We will send them for 10 cents, post paid.

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☞ Subscriptions may commence with the first number of any month in the year.

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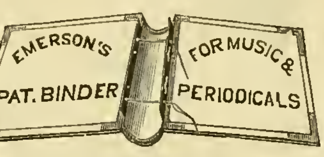

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This work is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. It is fully "up with the times" on every conceivable subject that can interest the apiarist. It is not only instructive, but intensely interesting and thoroughly practical.

—:o:—

Read the following opinions of the Book;

All agree that it is the work of a master and of real value.—*L'Apiculture*, Paris.

I think Cook's Manual is the best of our American works.—LEWIS T. COLBY.

It appears to have cut the ground from under future book-makers.—*British Bee Journal.*

Prof. Cook's valuable Manual has been my constant guide in my operations and successful management of the apiary.—J. P. WEST.

I have derived more practical knowledge from Prof. Cook's New Manual of the Apiary than from any other book.—E. H. WYNKOOP.

This book is just what everyone interested in bees ought to have, and which, no one who obtains it, will ever regret having purchased.—*Mich. Far.*

Is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without.—*Nebraska Farmer.*

To all who wish to engage in bee-culture, a manual is a necessity. Prof. Cook's Manual is an exhaustive work.—*Herald*, Monticello, Ill.

With Cook's Manual I am more than pleased. It is fully up with the times in every particular. The richest reward awaits its author.—A. E. WENZEL.

My success has been so great as to almost astonish myself, and much of it is due to the clear, disinterested information contained in Cook's Manual.—WM. VAN ANTWERP, M. D.

It is the latest book on the bee, and treats of both the bee and hives, with their implements. It is of value to all bee-raisers.—*Ky. Live Stock Record.*

It is a credit to the author as well the publisher. I have never yet met with a work, either French or foreign, which I like so much.—L'ABBE DU BOIS, editor of the *Bulletin D' Apiculteur*, France.

It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat*, Pulaski, N. Y.

We have perused with great pleasure this *vade mecum* of the bee-keeper. It is replete with the best information on everything belonging to apiculture. To all taking an interest in this subject, we say, obtain this valuable work, read it carefully and practice as advised.—*Agriculturist*, Quebec.

This book is pronounced by the press and leading bee-men to be the most complete and practical treatise on bee-culture in Europe or America; a scientific work on modern bee management that every experienced bee-man will welcome, and it is essential to every amateur in bee-culture. It is handsomely printed, neatly bound, and is a credit to the West.—*Western Agriculturist.*

This work is undoubtedly the most complete manual for the instruction of bee-keepers which has ever been published. It gives a full explanation regarding the care and management of the apiary. There is no subject relating to the culture of bees left untouched, and in the compilation of the work Prof. Cook has had the advantage of all the previous knowlede of apiarists, which he uses admirably to promote and make popular this most interesting of all occupations.—*American Inventor*

It may safely be pronounced the most complete and comprehensive of the several manuals which have recently appeared on the subject of bees and their handling in apiaries. The studies of the structure of the bee, the different varieties, the various bee products, and following these the points of management, extending to the smallest details, are all of high and practical value. Prof. Cook has presented the latest phases of progressive bee-keeping, and writes of the themes discussed in the light of his own experience.—*Pacific Rural.*

Of the many excellent works which we have examined on bee-culture, we consider Prof. Cook's the most valuable for the study of those who contemplate going into the business or are already keeping bees. If thoroughly studied, and its teachings conformed to, by the apiarist, who exercises a reasonable degree of common sense, he or she cannot fail to achieve at least a reasonable degree of success. The author addresses himself to the work with a degree of enthusiasm which carries the reader with him to the end.—*Kansas Farmer.*

Cook's Manual of the Apiary holds in America the same high rank, that is accorded in Germany to the book of which Dzierzon is the author; the only difference being that Prof. Cook's Manual combines the profoundness of the German pastor with the superiority of the practical American. He refers in several instances to Darwin; and does not belong to that class which hates everything that is foreign, for he speaks of German naturalists with great reverence.—*German Freidenker*, Milwaukee, Wis.

—‡o‡—

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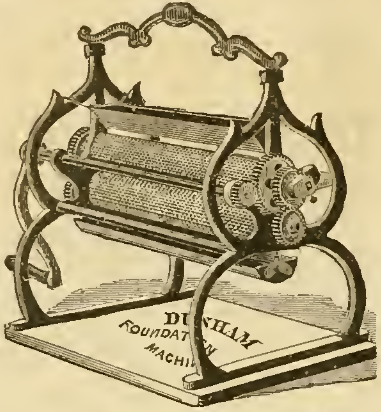

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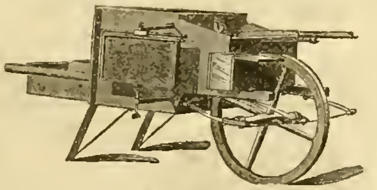

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VOL. XVII. CHICAGO, ILL., OCTOBER 26, 1881. No. 43.

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Bees and Honey in Russia.

Congressman S. S. Cox, who has spent the summer in Europe, describes his visit to Russia, in a letter to the New York *Express* of Sept. 29. He thus describes the land and its inhabitants, and avers that the people are greatly interested in bees and the production of honey. Mr. Cox, in describing a journey from Moscow to the Black Sea, remarks as follows:

The country reminds one of the Pacific overland route, except that here and there are many paddocks piled together in fields for sheep-folds as occasion may demand, but the general cultivation, as far as the eye can observe, is that of our prairies. The little hillocks, made by moles, I suppose, are not so frequent as those of our prairie dogs, but they remind us of our own domain. The soil, where plowed and where it crops out, is as black as the sheep, and in this it is a great contrast to our alkaline plains. We perceive, as far as the horizon's verge, immense fields of grain and meadows of hay, and these remind us of California and its golden grain grounds of recent date. Black sheep and pied cattle are common. Some of the fields are in flower. What can it be? Buckwheat, and in such a width of acreage.

The ancient Scythians, the ancestors of these Russian Sclavs, were celebrated for two things: 1. The quantity of liquor they could throw themselves outside of without detriment, and, second, the cultivation of honey.

How do the peasants look? Slovenly; the hair long, like that of the classic Scythian of 2,000 years ago—sunburnt and almost dirty in its hue. Now and then there is a Tartar face, very much like a Sioux or a Kickapoo. The roads are not bad, but it is summer, and the lumbering carts tumble along easily enough. Is there aught as yet to break the monotony? Yes; after the second day the flowers begin to show signs of the southern sun upon the meadows, and some sorghum fields appear with busy bees; buckwheat still in rich flower, but the never-ceasing wheat in green and gold remains to the end to amaze the mind.

Mr. Cox was not very favorably impressed with the country; everything was of the crudest sort. The country is very productive; the golden harvests are magnificent and large, but they are gathered in the most expensive way without the aid of machinery—by slow and tedious labor of men, women and children. He says:

Throughout the 1,500 miles of these levels, we saw but two labor-saving machines, and these were run by steam, and for thrashing. The short sickle and the flail—women to bind, men to reap; men to mow, women to rake, and so on to the end, and but few, after all seen, compared with the immense work which seems to have been done by hand. It was not rainy, except for a few hours, when we perceived the peasants smoking under their carts and behind the hay-rows. All the long, sunny days this wonderful iteration of the harvest and sign of toil, and yet how little to see of the calloused hand and beaded brow with which rhetoric condescends to decorate labor.

This reminds us of many scenes presented to our view when we were in Europe in 1879, such as women drawing canal boats in place of horses; women drawing, while men held the plow, and such like barbarianisms. Civilization seems to be 300 years behind that of America, and many of the inhabitants in the rural districts cannot be persuaded that anything exists in the World in advance of that seen around them. Ignorance, superstition and prejudice have full sway. With such competitors, what is to hinder America from supplying Europe for years to come with all kinds of farm produce including honey.

* * *

☞ To prohibit the use of glucose by law would be about as proper as to compel hotel keepers to use first-class meat in hash, or cheap boarding-house keepers to debilitate the butter. If persons wish to buy and eat glucose, they have a right to do so; we would throw no obstacle in the way of buying it. But we do object to their buying and eating it for pure honey, or syrup, or anything except what it really is. If buyers inquire for glucose, let them have it; if for honey, sell them honey.

European International Congress.

Mons. Ed. Bertrand, editor of the *Bulletin D'Apiculteur*, in Nyon, Switzerland, has kindly sent us the following Report of the great apicultural Congress of European Bee-Keepers, held at Milan, Italy, on Sept. 15, 16, 17 and 18, 1881.

There were about 250 of the most progressive and scientific apiarists present. Among the foreigners we may mention Dr. F. Kuhl, the representative of the German Congress of Erfurt, and Mons. Ed. Bertrand, editor of the *Bullentin D'Apiculteur* of Nyon, Swisse, and Secretary of the Society of Swisse Romand d' Apiculteur and Mr. Pometta, breeder of Italian bees, of Guido.

Mr. Bertrand reports the proceedings as follows:

Dr. G. Bianchetti, di Ornavasso, a well-known apiarist, and advocate of progressive bee culture, was elected president; and Sig. And. Tartuferi, of Fabriano, the most extensive bee-keeper in Italy, who has 1,500 colonies of bees with a crop of 26,000 lbs. of honey this season, was elected Vice President. The Secretaries were Count Alfonso Visconti di Saliceto and Pastor Bertini.

The first essay was by Dr. Grassi on a new bee disease, observed at Messine, (Sicily), and a new parasite of the bee, illustrated by microscopic views of it.

Mons. Ed. Bertrand addressed the Congress on queen breeding. As Milan is the country of queen breeders, this address caused considerable interest. Mr. Bertrand remarked;

"All agree that we must breed the best queens, but it must be admitted that all queens received from Italy and Switzerland are not equally good—many are weak, and are poor layers, and often die during the first year. The journey and change of climate may account for this, in some measure, but breeders are not sufficiently careful in rearing them and do not follow the most approved and progressive methods. Complaints are made in Switzerland, Germany and America. The Americans claim that Italian queens bred in that country are superior to those imported from Italy. The following are some of the most important points to be observed in rearing queens: 1. Judicious selection; 2. A sufficiency of young bees; 3. A full colony is necessary to feed the royal larvæ; yet we know that many queens are reared in nuclei. (The speaker quoted largely from Mr. M. Quinby, German authors, Prof. Sartori, and the new work of Dr. Dubini); 4. the queen should be reared only during honey gathering; 5. the royal larvæ must be with royal jelly, from the egg. I hope this Congress will fully discuss these points."

Count Borromeo remarked that much of the weakness of the queens exported might, perhaps, be accounted for by the change of diet and climate.

Mons. Bertrand asserted that the daughters of imported queens are better than their mothers.

Dr. Dubini and Prof. Sartori condemned the practice of rearing queens in nuclei.

A long discussion ensued on each of the five points named, and the Congress agreed that they were essential; adding, however, that royal larvæ may be fed in strong nuclei with young bees, if the quantity of unsealed brood given is proportionate to the quantity of young bees, according to the method given in "Quinby's New Bee-Keeping."

Sig. Sartori remarked that such careful breeding should not be expected, for the low prices now paid for queens.

Mons. Bertrand agreed to this, but suggested that breeders fix the price according to the care bestowed on rearing queens, as they do in America.

The Congress passed the following unanamously:

RESOLVED, That the Italian Association send to Mons. Bertrand, for trial, several queens bred in nuclei and several bred in full colonies, Mons. Bertrand to test and report upon them without being informed of their manner of rearing.

SECOND DAY.

Upon reassembling, Mons. Bertrand read the following address, in French, by Mr. T. G. Newman, of Chicago, editor of THE AMERICAN BEE JOURNAL, and ex-president of the North American Bee-Keepers' Society, on

The Best Bees.

Mr. President and Members of the International Congress at Milan, Italy:

Please accept our thanks for the honor you conferred upon us in making us an honorary member of the Central Society of Apiculture in Italy, and for your very cordial invitation to be present on this occasion.

We often think of our visit to your city in 1879, and while memory holds its sway, we shall never forget the pleasant hours we spent with Count Barbo, Pres. of the Central Society, and also with Count Alfonso Visconti de Saliceto, the able editor of *L'Apicoltore*, the organ of that Society, and others of your honorable body, and we exceedingly regret that our duties in connection with the BEE JOURNAL will not permit us to accept your cordial invitation to be present at the International Congress, and to participate in your deliberations, which will, without doubt, be deeply interesting to those present, and of vital importance to progressive apiculture the world over.

From every land where bee-culture is practiced upon scientific principles, comes the important question, "How can the best bees be produced?"

While offering a few suggestions, and briefly reviewing the subject of producing the best bees, we shall not attempt to detail the minutiæ of breeding them, but will simply offer a few thoughts upon the general topic, for the contemplation of the noted apiarists of the different countries who may be present at the Congress.

In "the bee-keeping of the future," not only will the best methods of management be adopted, but a superior race of bees will, without a doubt, be developed.

The whole world is indebted to Italy for the Ligurian race of bees which, it is now admitted by all progressive apiarists, are much superior to the German or black bees. Five points demonstrate their superiority—they are more hardy, prolific, gentle, industrious, and beautiful—the queen must be *prolific*, to be able to keep the hive full of bees, to gather the honey harvest when it comes; the bees must be *industrious*, to let nothing escape their vigorous search, while gathering the sweet nectar; they must be *docile*, to allow the apiarist to manipulate them with ease and pleasure; they must be *strong and hardy*, to withstand the rapid changes in climate; and must be of singular *beauty*, to attract the admiration of the fancier of fine stock.

In the general search for the best bees, those of many countries have been tried and more or less discarded, viz: the Carniolan, Dalmatian, Smyrnian, Herzegovinian and Egyptian. In 1866, two eminent Germans, Count Kolowrat and Hern Cori, imported the first Cyprian bees into Europe, and expressed themselves much in their favor. Since then, they have imported several colonies more for their own use, but never placed any upon the market, so that other bee-keepers may obtain them.

But to Italy and America belong the honor of putting forth the greatest exertions to produce the best bees in the world. Did not Mons. J. Fiorini, an Italian, make a journey to the Island of Cyprus and to Palestine in search of Cyprian and Syrian bees, to improve the race of Italian bees by crossing, or to improve those races by careful breeding? Mr. D. A. Jones, of Canada, at a cost of thousands of dollars, also journeyed to the Island of Cyprus and to Palestine, for the same object; he secured many colonies of Syrian bees, and established an apiary in Cyprus, in charge of Mr. Benton, a brave and fearless American, who (to his honor be it stated) has journeyed through Arabia, India, Ceylon, and the East Indies, and in the face of danger and difficulties untold, in search of some superior race of bees, or some that may be improved by judicious breeding. True, he has not been as successful as could have been desired, but he has planted in Ceylon some colonies of bees from Italy and Cyprus, and if a "cross" of any value can be obtained between these and *Apis dorsata*, or *Apis florea*, he has placed it among the possibilities, in the development of "the bee of the future."

As yet, we think that the better strains of Italian bees are the best—and that they will be the source from which will be bred the "coming bee." They possess so many desirable points of superiority, that it will be a difficult matter to supersede them with any of the newer races, about which there is much difference of opinion among careful and observing apiarists. We have not sufficiently tested any of them to hazard a positive opinion from personal knowledge.

Regarding the Cyprians (from which much was expected), we have some very damaging reports. They are said to be very fierce in disposition, restless on the combs, easily aroused, and display no superiority to the Italians as honey-gatherers. Some of these objections may be based on prejudice, or insufficient investigation.

The Syrian bees appear to have met with more favor, though many are unable to find any superior traits. We have one colony of Syrians in the BEE JOURNAL Apiary. The queen is large, well-developed, and quite slow and deliberate in her movements. We have reared several very promising daughters from her, and all present the same general characteristics of the mother, and nearly approach duplication. They bear no resemblance to the hybrid Italian—in fact, not so nearly as the pure Italian does. The body is nearly a maroon-color, the segments being very distinctly cut, and a polished dark-mahogany color. The mother queen is certainly very prolific; the daughters are quite young yet, and were reared for the purpose of crossing with Italian drones. The workers, have a quick, nervous, hurry-scurry movement, are smaller than Italians, and more ready to repel intrusion. They are very good workers, and we think they become more amiable with frequent gentle handling.

Meanwhile, we await developments, and would respectfully request of this International Congress to endeavor to enforce among Italian breeders more rigid work in the production of bees to be exported. The grand object being to elevate the race, there should be no backward steps; no deterioration in excellence should be countenanced; no thoughtless or hasty work must be allowed—but the most thorough and rigid treatment should be employed, all looking to the advancement of the art and science of reproduction, and the building up of a *strain* of bees that will give the very best of results.

In developing the highest strain of horses, not all their offspring are equal to the best; careful selection of those coming the nearest to the ideal animal must always be chosen from which to breed; and the closest scrutiny is necessary while making that selection. The same is true of cattle, sheep, hogs, poultry, and bees. "Sports" and "variations" continually occur, producing inferior progeny: but all careful breeders who have an eye to the improvement of the race will reject those that do not come up to the "standard of excellence," by sending such animals and poultry to the shambles; so let us carefully select the best queens and drones to breed from, and sacrifice all others.

In this way we may hope to attain that degree of perfection in bees so long hoped for, and our exertions may produce that which will be not only a pleasure to ourselves, but will be an honor to the present generation and a blessing to the world at large.

These thoughts are fraternally submitted by your co-laborer and friend,

THOMAS G. NEWMAN.

The President remarked that the International Congress was deeply indebted to Mr. Newman for this most learned and interesting address, and he thought he was the interpreter of the wishes of the Congress, to ask Mons. Bertrand to thank Mr. Newman, in its name, most cordially, for this favor. The Congress unanimously concurred in the views as expressed by the President.

Dr. F. Beltramini di Casati read a lengthy but very interesting billiography of the honey bee. He began this work some 20 years ago, and it is yet unfinished. [It is a remarkable and unequalled work. Count Barbo, Count Visconti, and others, agree with me that it should be published. —E. B.]

Dr. A. Dubini, one of the editors of "L' Apiculteur" gave an address on the movable cover for hives, which he much prefers to the close top, as used in Italy; the latter are on the German-Berlapsch principle and open only on the back.

Mons. Violati Fescari, Dr. Bianchetti and myself agreed with Dr. Dubini, while Count Barbo and others spoke in favor of the German-Italian system. Count Barbo remarked that the model of the Langstroth hive which the honorable President Newman exhibited to us, with a movable cover, was useful in obtaining comb honey, but tight covers are more healthy for the bees. The Germans on that account had discarded the movable cover. The health of the bees being of first importance.

Mons. Bertrand observed that there was foul brood in Germany and Italy as in any other country, and perhaps more; therefore, tight caps had nothing to do with that disease. He had tried both kinds of caps for several years and much preferred the movable ones, for the ease of manipulation.

THIRD DAY.

Sig. A. Marenzi, an able bee-keeper of Bergamo, addressed the Congress on the danger of using sulphur for preserving the combs from the moth. (See Apicoltore, for April, 1881.) He had observed in several apiaries that sulphurated combs given to bees, had after some time, contained foul-brood, while other combs in the same hive not sulphurated were free from foul-brood. He supposed the danger arose from the combs not being well cleaned and dried by the bees, previous to their being sulphured. He wished to call the attention of the Congress to this matter.

A long discussion ensued, and it was agreed to make observations and report upon the subject.

Dr. Bianchetti detailed the method of making swarms by dividing, and a long discussion ensued.

A committee, appointed by the Congress, reported on the best way to extend bee-culture among the peasants. Mons. Lanza suggested that the State Normal Schools should teach bee-culture and that the teachers should have some bees to inculcate their lessons. The report was approved.

The next Congress will be held at Bologna, and the same Committee of Arrangements were re-elected, and were directed to correspond with foreign apiarists and to endeavor to get them to attend. Each member received a diploma, as a souveneir of his presence.

On the fourth day at the banquet, many humorous speeches were made; it was a very enjoyable occasion.

The National Exhibition was magnificent—the bee section being well filled principally with honey, in various forms. I never saw or tasted such delicious honey before. It was both comb and extracted, light and dark, from all parts of Italy.

Count Barbo, Count Visconti, Dr. Dubini, Prof. Sartori, and others did everything possible to entertain the visitors—and all sent their best regards to the Editor of the AMERICAN BEE JOURNAL, and wished he were with them, to enjoy the occasion.

ED. BERTRAND.

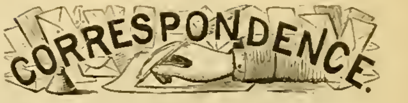
We are glad to see that the Congress met the question of "breeding for the best" fairly and impartially. We have long known and urged through the BEE JOURNAL that, as a rule, not enough attention was paid by the Italian exporter in the breeding and selection of queens for export; indeed, many of them have been worse than worthless. Sig. Sartori undoubtedly gave the true explanation when he remarked that "such careful breeding should not be expected for the low price now paid for queens." With the low price for export queens in Italy, combined with our pernicious dollar-queen system here, it is not a matter for wonder that many fail to recognize the superiority of the Italian bees; and this, too, has made it possible for our scientific breeders to develop better strains of Italian bees than they have in Italy. The five main points enumerated by Mr. Ed. Bertrand regarding queen-rearing are well chosen.

* * *

Bee Eater.—I send you a "bee eater" of some sort, together with his prey. I have often seen them in my apiary, but could never, until to-day, prove them guilty of the murder of my pets. Please give me name and general characteristics. ROSE P. THRALL.

San Marcos, Tex., Sept. 22, 1881.

[The strange looking insect sent by Rose P. Thrall is the *Praying Mantis* (Mantis Carolina), and receives the name *Praying Mantis* from its devotional attitude, as it seems to be on its knees. It is a Southern insect, though I have received it from Indiana, with the same report as to its preying upon bees. It belongs, with the crickets and grasshoppers, to the order *Orthroptera*, and is closely allied to the walking-stick of our northern States, the *spectrum femoratum*, which, in a general way, it strongly resembles. Unlike the most of the locust order, it is strongly predaceous, and is even cannibalistic, as it will eat its own kind. It has been reported to eat grasshoppers, and it has been recommended to introduce it in localities to which it is not a native, as an abettor in the work of insect destruction. Unless it is a serious pest, as a "bee eater," which I think is probably not true, our southern friends better overlook its minor faults, and cherish it as a friend. Although this queer looking insect looks like our walking-sticks, it has wings, though the female is not able to fly. Its eggs are glued together in a flat oval mass, and attached to some leaf or twig. The *Praying Mantis* is entirely safe, and may be fearlessly handled. The attitudes which it strikes as it is handled are altogether odd and comical. I wish the lady would send me several more of them, and any other Texan insect will be very thankfully received.—A. J. COOK.]



CORRESPONDENCE.

For the American Bee Journal.

Improvement of the Race of Bees.

DR. I. P. WILSON.

Since receiving the $10 prize offered by Rev. E. L. Briggs, of Wilton, Iowa, for the best Italian queen, I have received several letters of inquiry with reference to my strain of bees, where they came from, etc., and with your permission, Mr. Editor, I will answer those inquiries through the AMERICAN BEE JOURNAL.

I purchased my first Italian queen about 8 years ago of Rev. A. Salisbury, of Camargo, Ill., but lost her from want of a proper knowledge of introducing her. I then sent to Mr. Oatman, and procurred from him a very nice queen, also received through you a "perfect beauty" from Aaron Benedict, of Bennington, Ohio, and also through you an imported queen from Charles Dadant & Son, of Hamilton, Ill. I have purchased quite a number of queens from other breeders, but all being the leather-colored Italians, and not uniformly marked, I disposed of them in one way and another, and set about breeding from the Oatman, Benedict and the Dadant queens. The first year I raised all my queens from the Oatman stock, but found that this queen did not always duplicate herself, in fact, her queen progeny was far from being satisfactory; her drones were also dark. I raised all the drones I could from my imported queen, and as few as possible from my other queens. I did this by placing one or two new drone combs in the center of the colony containing the imported queen, and removed every drone cell I could find in the other colonies. My neighborhood was full of black bees, and I only succeeded in getting 2 or 3 purely fertilized queens the first summer. The following and subsequent summers I furnished all the queen cells I could to my neighbors, and aided in every way I could the introduction of pure Italian bees. Year after year I worked away in this direction, accomplishing but little that was satisfactory, until the present season.

Last fall there were over 200 colonies of bees in Burlington, and this spring there were less than 25, and 12 of this number were my own. This furnished me a "golden opportunity" to purely Italianize my bees and cross them as I desired.

During the summer of 1879-80, I bred my queens from the one I received of Mr. Benedict. The past summer I have had things pretty much my own way, and have had my queens nearly all purely mated with my best drones. When using one queen for breeding queens, I allowed her to produce as few drones as possible, and selected those colonies from which I wished drones, and encouraged them to raise all the drones possible. In this way, the queens from the Benedict stock were impregnated from the drones of the Oatman queen, or the imported one. In this way I have crossed from the three queens named year after year, destroying every queen that did not suit me after she was tested, until I found myself the happy possessor of 40 colonies of the finest looking bees I ever saw. This work has been an expensive one, for when I would find a queen not up to the standard in some small particular, I would decapitate her, and thereby interrupt the work of the colony at a time when a great loss of honey would be the result, but at such a time a poor queen may vitiate your apiary, for her drones are almost sure to be successful in meeting more queens than any others, at least it has seemed so to me.

It has been stated by some that white combs will produce light-colored queens, while dark combs will produce darker queens. I have not found this statement to be true, but there can be no doubt about new combs producing larger workers than old ones, and for this reason it is not well to use combs that are 3 or 4 years old. Indeed, we would have larger bees if the brood comb was renewed every year, yet I do not know that it would be profitable to do so.

There are many queens that will stand the test of purity, if you only examine their worker and drone progeny, but when you test them to see if they will produce young queens like their mother, they are found wanting. When the workers are uniformly well marked, it would seem that this queen progeny should likewise be perfect, but I do not always find this the case.

This is to me a most fascinating subject, and pleasure, rather than profit, has prompted me to give the "improvement of the race of bees" my careful and patient attention.

Burlington, Iowa.

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For the American Bee Journal.

Are Cyprian Bees of Value to us?

J. V. CALDWELL.

There can be no doubt but that we need all the evidence and facts in the matter to arrive at the truth, and to satisfy ourselves as to which is really the best race of bees. All things considered is what should be the constant aim of all unbiased and intelligent apiarists, and one of the best ways is to compare our experiences, and then take the bulk of the testimony.

About the 1st of July last I received from Mr. D. A. Jones an imported Cyprian queen, for which I paid him $10.00, thereby hoping to get one of his best queens, and have no doubt he sent me such. I introduced her at once to a queenless colony, and in due time she began to lay, and I at once reared queens from her brood for such of my customers as had ordered them. The queens were very good, so far as looks were concerned, but acted like wasps on the comb, nervous and fretful. The worker progeny of the old queen was always on the lookout for an opportunity to sting, utterly refusing to fill themselves with honey, but constantly roaming over the combs and from one end of the hive to the other, and, by merely pointing our finger at them, they are ready to fly at it and leave a sting, and, as we all know one sting is apt to be followed by another, this is a serious fault.

As to the qualities of the hybrids I know nothing, having shipped the young queens as soon as fertile, and having no desire to experiment farther with them and get the blood mixed with my princely Italians. I have raised no Cyprian drones, having received my queen too late, consequently my Italians are free from the taint of Cyprian blood. As to my Cyprian colony, I have decided to kill them and take their honey as soon as the honey season closes entirely. If they were extra good honey gatherers, it would, in a measure, compensate for their ferocious natures, but in this they did not equal any of my Italians, though in a good colony, and having had but too or three combs removed to breed from. This is the result of my experiment with the noble Cyprian.

Cambridge, Ill.

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For the American Bee Journal.

Bees in Australia.

S. MACDONNELL.

Since I last reported the condition of the two colonies of Italian bees received by us from Mr. A. H. Newman, of Chicago, I have separated the attached combs in one of the hives. I found the number of bees to be very weak, as there were not more than sufficient to cover two combs. I searched carefully for the queen but without success, and my fears of the hive being without a queen were raised, until I was reassured by seeing a small patch of sealed brood in the center of the center comb, which patch of brood a week or more later I found had increased from about one inch to about five inches in diameter. The numerical weakness of the bees suggested the advisabilty of uniting a quantity of black bees with them, and here I felt the want of that advice from experienced and practical bee-keepers which appears to be so readily given both personally and by print to all who ask with you in America. As the Pacific Ocean separates us from the source of advice, I found myself without a better guide in my emergency than my handbooks and bee-papers. As the colony, notwithstanding its weak condition showed sufficient vitality to increase its brood patch in the manner described, and bearing in mind that I had had no experience in uniting, and that my Italian bees were too valuable for an apprentice hand to practice uniting with, I deemed it advisable to choose the lesser of two evils, by leaving them alone.

I have not yet had an opportunity of separating the attached frames of the second hive of Italians, but have several times opened it and found it somewhat better populated than its neighbor, although by no means strong. I therefore have hopes of seeing both colonies in a position to work well when summer approaches.

So far I have been careful to avoid errors of commission in endeavoring to establish the Italian bee in these parts. I much dreaded offering any opportunity for robbing, when opening the two Italian hives, and have, therefore, made use of a bee-proof chamber for that operation. This, however, necessitates carrying the hive to the chamber, a proceeding not free from disadvantage.

Sydney, Australia, Sept. 6, 1881.

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For the American Bee Journal.

The Golden Honey Plant Again.

G. L. TINKER, M. D.

In answer to some inquiries and as a matter of general interest, I will say that the golden honey plant is one of the largest of our indigenous plants. Upon measuring the height of the tallest plants I was surprised to find many 10½ feet high, and the average height on rich, moist soils will not fall below 8 feet. On uplands where it produces the finest and most numerous heads of flowers, the height will average about 7 feet. In many cases 30 stalks were counted from one root, on each stalk an average of 100 heads. each containing an average of 30 florets, or a sum total of 90,000 honey receptacles or florets on a single plant. The heads on each stalk run from 50 to 275, and the florets on each head from 15 to 53. These facts were calculated from the number of seeds in each head, each seed having been crowned with one floret.

The plant is a perennial, but will grow up from the seed and bloom the first year, sending up only one stalk. The second year two or more stalks sprout up and on some old plants as many as 32 stalks, all growing very high, were counted.

The roots are large and the rootlets go down deep into the soil on uplands, and spread out two or three feet on lowlands. The foliage is dense, and where the plants are thickly, completely shades the ground so that nothing else will grow. No animal will feed upon the plant and it would seem to be of no use except to furnish the richest nectar to the honey bee.

The seed may be sown broadcast in the fall or any time during the winter, on prepared soil, or it may be sown in rows three or four feet apart. Many seeds, however, will come up and the plants take care of themselves if sown anywhere. After ripening, the seed becomes dry and mostly falls to the ground before winter. Many seeds have been on the ground sometime, but whether they will sprout or not without being subject to dampness and frost I am unable to say.

New Philadelphia, O., Oct. 7, 1881.

For the American Bee Journal.

Red Clover Bees.

R. SHERFY.

The past winter here was alike destructive to the bees. There were but few fruit blossoms in the spring to supply them for early breeding. Locust and poplar did well; white clover contained but a small amount of nectar; had too much rain during the white clover season, keeping the bees only in a fair condition for breeding. About a week after the white clover ceased to bloom, the second crop of red clover began to yield a splendid flow of neetar, which lasted about 3 weeks, the time being lengthened by several fields having been mown at different times.

Out of 40 colonies under my control, 36 worked diligently upon the red clover. I have been breeding from my best colonies, and importing new blood when deemed necessary, with the view of obtaining a superior bee, and at last have had the exquisite pleasure of realizing my desires.

I devoted but few of my colonies to surplus—nearly all to building up. One colony gave me about 25 lbs. of red clover surplus, besides filling up of the main body of the hive.

At the time that the red clover was in bloom, the air appeared to have the proper humidity for the secretion of nectar. The bees (Italians and well marked hybrids) worked as freely and as diligently upon the red clover as I have ever seen them work upon the white clover. I am not certain that my Italians possess a longer ligula than those of other apiarists, or that the corollas of the red clover in this section are shorter than those in other sections, but there is one thing that I am certain of, that is, we must have a strong bee if we wish to secure honey from red clover. The bee must have the power to force its head a certain distance into the corollas of the clover. I have noticed that many bees force their heads into the corollas and sip their contents, and with difficulty, extricate themselves. We must combine "strength with length of tongue" in order to secure *Apis Americana*.

Gettysburg, Pa., Oct. 4, 1881.

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For the American Bee Journal.

Effect of Pollen on Bees in Winter.

A. R. KOHNKE.

Reading the very interesting discussions of the North American Bee-Keepers' Society in Lexington, Ky., I have particularly noticed the different opinions in regard to pollen, especially those entertained by Prof. Cook and Mr. C. F. Muth, as being of opposite characters. Now, as both gentlemen are experienced bee-keepers, whence this diversity of opinion on a question as important as this one is?

To arrive at a more certain conclusion, I will raise the following question: Will the presence of pollen in any large amount prove injurious to bees, provided they are all right in other respects? It can hardly be supposed that the presence of a natural necessity in large amounts should induce bees to gluttony and cause sickness. How Prof. Cook could arrive at such a conclusion as he did without limiting his statement, I cannot perceive. Mr. D. A. Jones is most likely correct in presuming other causes which work the injury. Prof. Cook, in his prize essay on wintering bees, mentions 4 points to be observed: 1. A uniform temperature. 2. Plenty of wholesome food (to which not only honey, but pollen belongs). 3. Good queens. 4. Absorbents.

Rev. E. L. Briggs, in his essay read at the Convention in Philadelphia, 1876, enumerates also 4 causes of loss: 1. Starvation. 2. Intense and protracted cold. 3. Damp, moldy combs. 4. Unwholesome food.

Dr. Rush, in his essay, also read at that Convention, mentions 5 points to be observed: 1. Good, tight and dry hives. 2. No drafts of air. 3. A good queen. 4. Young bees. 5. Sealed honey.

It is rather singular to note the omission of one point, which is as necessary to observe as any, or all of them for good wintering. That one point above all others is "quietness." This does not only mean not to disturb the bees by taking the hive apart, or moving from one place to another, but there are many causes which may disturb them. It will have been noticed by all observing bee-keepers that bees are more sensitive to jars than noise. Anything that will impart a jar to the hives will arouse the bees, elevate the temperature in the hive, and the bees filling themselves with honey, distending their bodies and causing an undue accumulation of waste matter (feces) in them of which they cannot rid themselves in cold weather. The consequences can easily be foretold. Jarring of the hives may be imparted directly, or indirectly. Directly by mice, rats, cats, dogs, birds or other animals which gnaw, or peck or jump on the hives, or even by the bee-keeper himself, who raps on the hives to see if the bees are still alive. Indirectly by jarring the ground where the hives stand, which may be done by passing trains, fast driving of teams over the hard, frozen ground, as also by the running of larger animals as cows and horses; by cutting and splitting wood, felling trees, etc. Such jars are conveyed quite a distance through frozen ground, and it is absolutely necessary to protect the bees from them if we wish to be successful in wintering.

To sum up, dysentery may be caused by, 1, poor food, 2, want of plenty of young bees (caused by want of food in early fall, or poor queen). 3, disturbing the bees when they should enjoy perfect quietness. The first two points have been discussed repeatedly, but the third has never so much as ever received a passing notice.

For this last reason I consider outdoor winter preferable to moving them late in the fall into house or cellar, as that is evidently a disturbance which should be guarded against. For this reason, also, I am of the opinion that a large per cent. of bee-keepers wintering out-doors go to work too late in the fall to protect their bees from severe weather, disturbing them that way. Other causes may be discovered in course of time, but the presence of pollen, I think, will not be one of them.

Youngstown, O., Oct. 16, 1881.

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For the American Bee Journal.

The Season in Quebec, Canada.

THOS. VALIQUET.

The apicultural display at our Provincial Exhibition, held in Montreal, in September, amounted to but little.

There were a few colonies of Italian bees exhibited, but there had been no preparation made for bees, they consequently had to be placed at the side of a building on the ground. There was some honey in sections, also some extracted honey in pots, but it attracted very little attention on account of being placed among many other articles such as beets, potatoes, etc.

Some of the bee-keepers present desired to form a Bee-Keepers' Association, and I hope they may succeed.

The honey crop in this Province is a little above an average; but white and alsike clovers failed; basswood yielded well, but was later than usual in blooming. Swarming has been plentiful. On the whole bee-keepers have had a very fair year in the Province of Quebec. The hives are well stocked with bees and honey.

St. Hilaire, Quebec, Sept. 23, 1881.

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☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

CONVENTION NOTES

Kentucky State Convention.

The meeting was called to order at 1 p. m., Oct. 12, at Exposition Building, by Dr. N. P. Allen, President.

The minutes of last meeting were read and adopted.

Several new members were added to the list, and old members renewed membership by payment of the annual fee of 50 cts.

The Secretary stated that he had a letter from the manager of the Galt House, offering to provide rooms for the meeting of the Association free of charge, and to make hotel rates for delegates $2.50 per day.

President Allen then read his annual address, as follows:

Another year has passed, another harvest has ended since we last met in convention. Winter, spring and summer have all come and gone, and autumn is at hand with its ripened fruits and withered flowers—with its brown and seared leaf, which tells us of the evening of life which is fast approaching. We look back over the days and months that are gone, and meditate upon the toils and labors, successes and disappointments, joys and sorrows which were the portion of us all as we passed through them. Our lives have been spared, and we would return thanks to God, the giver of all our blessings, for his tender mercies and loving kindness.

The past winter was unusually long and extremely cold. Many colonies of bees perished before spring opened. Many apiaries were so depleted by the death of whole colonies and the heavy loss in those that survived, that there were not bees enough in early spring to build up rapidly from the spring flowers, but in coufrse of time the weak became strong, and the poor became rich, and the increase by artificial or natural swarming soon filled the empty hives, and in favored localities, a fair crop of honey was gathered in the early part of the season. But in the midst of the white clover harvest the rains failed, the excessive heat parched the earth, and the honey flow ceased. The crop was cut short—a long protracted drouth set in, and not only bees suffered, but stock and crops of all kinds shared the common fate. But the late rains revived vegetation, and the fall flowers, such as the smart weed, the golden rod and the aster, have enabled our bees to regain their depleted stores, so that in most cases they have sufficient for winter.

I had hoped to have a statistical report to lay before you of bees and honey in the State, but can only refer you to the reports of Vice-Presidents for such information.

I recommend that a Vice-President be appointed for every county in the State, and that they be required to make a report at your annual meetings of the number of colonies and amount of honey in their respective counties; also the kind of flowers furnishing the crop, and any other items of interest to bee-keepers. By this means the best localities in the State for locating apiaries can be ascertained, and the honey resources of the State developed.

I would also recommend that more attention be given to the cultivation of honey producing trees, shrubs and plants for bee pasturage. This can be done by planting in fence corners, roadsides and waste places, with such trees, shrubs and plants as produce honey. Of the trees, we would recommend the poplar, linden, elm, maples, willows, locusts and persimmon. Of the shrubs, the sumac, coralberry, gooseberry and raspberry, and such plants as grow without cultivation, as the motherwort, catnip, Simpson honey plant, also white and sweet clovers. All of these have honey-producing flowers. Quite a number of honey-producing flowers are also recommended for cultivation in our gardens and fields that answer a two-fold purpose, the hay and seed crop being valuable for stock, as well as affording rich pasturage for the honey bee. The various clovers, such as white clover, alsike clover, Japan clover, melilot and Bokhara, are all valuable honey plants.

We notice quite an interest is being manifested by bee-keepers in books on bee-culture and in bee periodicals. We now have a BEE JOURNAL published by Thomas G. Newman, Chicago, Ill. No bee-keeper can afford to do without its weekly visits, as its pages are brimful of the latest and best news.

We notice with pleasure the progress made in the modes of obtaining and marketing the honey crop. Many are using the one and two-pound sections for comb honey, and the one and two-pound glass jars for extracted. These neat little packages, put it in fancy shape, thus making it more attractive, and in small quantities, thus bringing it in the reach of all classes of consumers.

We also have for the encouragement of the bee fancier the different races of the honey bee from which to select; new bees are being imported from year to year. New inventions are being made in apiarian implements, hives, honey boxes and sections. Comb foundation is being used in the brood department as well as the surplus honey department.

In conclusion, allow me to wish you a prosperous session, and success and happiness in all your undertakings.

Dr. Allen said that Mr. Jones, of Canada, stated at the Lexington meeting that he would guarantee that one acre of Bokhara clover would produce 1,000 lbs. of honey. He uses it exclusively for bee pasture. He sows in strips across the ground, the plants growing 4 and 5 feet high, and falling on the open strips. The next year the open strips are seeded, and are covered with the new growth, and the old strip becomes vacant. Dr. A. thought this clover would grow here.

Dr. Kaye suggested that winter turnips be added to the list of honey plants. Mr. Craycraft also advocated Scotch kale.

W. Cook, Dr. Kaye and A. Schneider were appointed a committee on resolutions, with instructions to take up the President's address.

I. B. Nall, Treasurer, read his report, which was adopted.

The President then appointed the following committee on nominations: Dr. L. E. Brown, William Cook and A. W. Kaye, to report on Thursday morning.

The Secretary read a letter from Mr. W. T. Sears, regretting that owing to sickness he could not prepare his article. The President suggested that a discussion on "Transferring of Bees" be held.

W. Cook moved that the President appoint some member to write an article on transferring.

Mr. Williams amended by requesting that the President write such an article, and publish it in the *Farmers' Home Journal*, which motion, as amended, prevailed.

The President, while accepting, suggested the discussions on the subject.

Mr. Cook thought it best for persons who have transferring to do should do it themselves, as the way in which they may learn. He said last spring he had an old Langstroth hive to transfer. He propped up one side, smoked the bees, took off legs, and one side out, took out the combs and brushed off the bees all right. But just then all his own and all his neighbor's bees made an attack upon him. All the bees in the neighborhood were on the war path. But after a while he got his bees in the new hive and left a small opening. Still the bees were not satisfied, and continued to fight one another. Water failed to appease them. Next morning the battle began again, and a half gallon of bees were left dead in front of the hive. He stopped the opening until next day, when quiet was restored, and the hive is now doing well. He thought it would pay anyone to transfer from old-fashioned to Langstroth hives, but it should not be done out-of-doors and among other hives.

Dr. Allen, in transferring comb, prefers to tie the comb into the frame with cotton twine. He says the comb should be cut to fit the frame. He demonstrated his plan. He first smokes and puts on a swarming box. He then thumps on the hive and the bees go into the swarming box. He has a transferring board, and after removing the comb to a room, it is fitted to the new frames, which are then tied in with the twine. He throws out all the drone comb, and keeps the honey comb as much as possible at the top and at ends. The brood comb is put near the center of frame. The frames are then set in the new hive and filled out with empty frames, when the hive is set where it is to stand. Location can be changed if desired when transferring.

H. H. Littell does not use twine in transferring, as the bees pull at it to get it out of the hive. He prefers to transfer in a honey season; proceeds as the President does, except he tacks a light strip across one side of the frame, inserts the comb, turns it and tacks a strip on the other side. In a day or two the strips can be removed without difficulty. He thinks bees should be examined frequently. Has 8 colonies which have done well until the drouth came on; but as bees robbed groceries so badly, he thought he would have to remove them to the country. He uses Langstroth hives. He thought hives should be painted inside, as the bees would not then connect the comb in frames with the hive.

The President objects to strips, because in using them he found it destroyed so much of the brood.

Mr. Knight uses pins stuck through holes in the frame, and where the comb is in pieces he uses twine.

A member stated his plan of fastening comb in frame was by a slot lengthwise at bottom of frame.

Col. Maginness extended the courtesy of the Exposition to members of the society, and was voted a resolution of thanks.

James Erwin's essay was read, on the

Pleasures and Profits of Bee-Culture.

The study of nature ever brings with it a pure and quiet source of enjoyment not found in the busy marts of trade and commerce. Perhaps no class of manual laborers have freer access to this source of pleasure than the professional apiarist. To him, the study of nature in the wonderful transformations which insect life undergoes, and the delightful harmony which prevails in this insect kingdom, is a part of his daily observation. And in quiet communion with the visible forms of the great architect, in the realm where instinct is supposed to sit as umpire, the reflective mind is insensibly led to contemplate the possibilities of created existence, in a state where the will of Him "who doeth all things well," shall be universal law. Man's natural love for the beautiful, may also be gratified in the adornment of grounds, construction of hives, the cultivation of rare species, and in the study of plants and flowers, while the period of leisure afforded in the winter season, gives time for study and recreation. These things beget an enthusiasm, which lightens toil, and makes bee-keeping one of the most delightful of occupations.

But I come now to the second division of my subject, Profits, which, to the practical mind, will be of first importance. The question is, Can bee-keeping be made profitable? I answer, yes. This conclusion is not derived merely from theory, but from considerable experience in the care and cultivation of bees. It is a matter of positive knowledge that bees, when intelligently managed, will pay a larger per cent. upon the capital and labor invested, than almost any other business. Yet, while this is the case, it is not every one that can succeed in this avocation. Indeed, if they could it would be an exception to all other lines of business; men fail in every business, but the failure is in the man, and not in the business. I have premised that bee-culture, as an avocation or profession, contains the elements of success. Bees have been cultivated by man since the earliest ages, but it is only within the past decade that the science of bee-culture has received that attention from thinking men, that its importance demands. And in this, as in other lines of business, it is only thinking men that can achieve any marked success. This is the age of brains—an age in which men are developing all the resources of wealth which a bountiful Providence has provided. And as God has provided the health-giving, life-sustaining nectar in abundance in the myriad of beautiful flowers that deck our fields and forests, and also provided the bees to gather it, and endowed them with instincts which lead them to store it up in quantities far exceeding their own wants, it would seem that the beneficent Creator intended that man should utilize these gifts, and make them conducive to his own well being.

I shall now come to consider those qualifications which bespeak the successful apiarist. And first of all, I would say in general terms, that he should possess a thorough knowledge of the requirements of the business. This would include a knowledge of the natural history, habits and instincts of bees; a knowledge of the best hives and implements in use; also a knowledge of the honey resources of the locality in which he should choose to locate. The practical management of bees at different seasons and under different circumstances, and how to produce the most honey in the most marketable condition, can only be learned by practical experience in the apiary. Of course, the amount of honey produced will vary in different localities, and in the same locality in different seasons. In our locality (Allen county), where the extractor is used and only strong colonies kept, I think an average of 40 lbs. per colony, one year with another, a good yield. This (when it is remembered that one man can easily care for 100 colonies), at the average price of 10 cts. per lb., will give $400—fair wages, considering that the bees will not require more than 6 months' labor during the year.

I think, however, that the greatest benefit to be derived from associated effort, is the diffusion of knowledge among the agricultural classes in regard to the true principles of scientific bee-culture, as by these means, in time, perhaps enough will engage in the pursuit to develop the honey resources of the State, and thus add to the revenues of the State a source of wealth now undeveloped.

Reports on Wintering Bees.

The President wintered 40 colonies, lost 1; received 2,000 lbs. honey; had 3 natural swarms; made 3 swarms, and has 45 strong colonies, rich in stores. Thought he had at present 500 lbs. surplus honey.

Dr. Brown commenced with 33; lost 13; had 4 natural swarms; got 500 lbs. honey; wintered on summer stands.

W. Cook put 5 colonies into winter quarters; lost none; has made 5, and had 4 natural swarms; lost 3; has 12 colonies now; has taken 60 lbs. honey; every hive but 2 has a surplus.

G. W. Ashby had 33 colonies in the fall; lost 22; wintered on summer stands; took 300 lbs. honey; has 30 now, all but 2 in good condition.

Mr. Littell, Louisville, started the winter with 5 colonies in Langstroth, double-wall hives; saved all; had 4 swarms, saved 3, and has 8 colonies in good condition; fed the weaker ones on sugar during the fall; took 90 lbs. honey.

Dr. Kaye started with 30 colonies, half of them weak; lost 14 from inability to attend them; had 4 natural, and 12 artificial swarms; yield of honey, 500 lbs.; has now 25 colonies in good condition; fed some grape sugar during the drouth to encourage increase of bees. He has Langstroth chaff hives.

Mr. Kansler, Spencer county, Ind., had 21 colonies on summer stands protected by corn stalks, with padding under the cap; lost 3 in winter, united 6, which left 12; clover was killed and bees gathered no surplus honey.

Mr. Hamilton, Louisville, had 48 colonies in fall, 26 in spring; took 700 lbs. honey; wintered on summer stands packed with 8 inches of straw; has mostly Faulkner hives.

Mr. Schneider, Louisville, started with 35; all but 9 in dry cellar; prefers cellar wintering; has mostly Langstroth hives; lost 2 in cellar; kept the temperature at 40° to 43°.; sold 8 hives; increased by artificial means to 35 again; had 500 lbs. honey; there should be upward ventilation; those in cellar, where he took off tops, did best.

Dr. Allen agreed with Mr. S. in this.

L. Hofstetter, Louisville, commenced in spring of 1880 with 14 colonies, and increased to 28; fed on glucose; lost 14 in winter; had 200 lbs. honey; those he divided and fed did not do as well as the others. He preferred using glucose to sugar syrup, because the latter granulates in spring.

Mr. Moberly, Hardin county, put into winter quarters 40 colonies in Langstroth hives; covered top of hives with old quilts; lost but 1, and had 6 swarms; took 400 to 500 lbs. honey; bees are now in good condition. He will not feed glucose, but prefers granulated sugar syrup.

Mr. Littell said even if the sugar syrup granulates the bees will dissolve it, if provided with water.

Mr. McConnell, Shelby county, Ky., put into winter quarters 65; lost 14; wintered in common frame hives on summer stands; used carpeting on top with a little straw on it, and in other ways; found those with straw on top did best; had but 600 or 700 lbs. of honey this season; had 24 natural swarms, but divided some; fed some honey to weak ones; has 69 in good condition now. His bees are mixed.

Mr. Craycraft, Salem, Ind., put into winter quarters 41 colonies in double-wall hives; lost all but 3 from dysentery; thinks it was caused by bees filling hives in the fall with fruit juices.

Mr. Knight, Oldham county, put 17 colonies into winter quarters; lost 3, and 1 in spring. Has now 28.

Mr. Ladler, Jefferson county, wintered 3; increased to 8; made 300 lbs. of good honey; all are now in good condition; wintered with quilt only on top.

The President appointed Mr. Hofstetter, Mr. A. Schneider and Mr. Moberly a committee on apiarian supplies.

Adjourned to meet at 7 o'clock p. m.

EVENING SESSION.

Called to order at 7 p. m., an essay by Dr. Ed. Drane, Eminence, Ky., was read, on

Bee-Keeping a Specialty.

When I first caught the bee fever and began to make bee-keeping a success, I thought everyone that loved honey ought to keep bees—at least a few colonies, to gather the pure nectar offered as a free gift to all, or any who may choose to receive it. But I have seen so many bungling attempts at bee-keeping—have had such poor success in persuading others to learn how to keep and treat their bees, so as to reap a profit, that henceforth, instead of advising people to keep bees, will insist that they study apiculture first; then, if they choose, they can make profitable use of their knowledge. Any one might practice medicine without having studied the profession, and but few of his patients would ever expose his ignorance, for they would be buried out of sight.

All the professions, trades and various pursuits in life are fast drifting into specialties. One M. D. makes a specialty of treating the eye, another the ear, another the bowels or lungs; one merchant makes a specialty of ready-made clothing, one of piece goods, one of hats, one of toys, etc., and the most successful in the various pursuits are educated, or have been educated and fitted for the business they follow—the doctor, lawyer and merchant, in schools and colleges for their especial training. We should advise people to study bee-keeping first, and then to keep bees, if they like. When the average owner of a few colonies of bees sees the little busy bee coming in with pollen early in the spring, he suddenly, spasmodically, all at once resolves to learn bee-culture. There is honey in it, and he likes honey. But his knowledge must not cost him a cent of money, nor more than a few hours' time. Hence, the first opportunity, he hails the first bee-keeper he meets and invites him to lecture then and there on bee-culture, and expects to learn it all in 10 minutes; or more likely invites him home with him, or to come in the near future and examine his bees and show him everything necessary to be done in order to make bee-keeping a success, and if advised to read, is always ready with the reply, "I have not time." Two chances to one the bee-keeper he has applied to for instructions is the wrong man, who has never been to school and read the proper books on bee-keeping, but he feels flattered in proportion as he is ignorant, and with great generosity, and perhaps more ignorance, gives the applicant bad advice, which will result in ruin and loss if followed. Therefore, I think we should caution or admonish novices in bee-culture, or those who contemplate keeping bees, to beware of whom they take advice; gratuitous advice is generally looked upon as like bad medicine.

I believe that if the number of successful bee-keepers was double what it is now, and the production of honey was increased in the same ratio, the consumption of honey would be increased and popularized in even a greater ratio, and that bee-keeping would be more profitable than now. I have no fears of an over-production of honey. Just have it in merchantable shape, so that it can be handled like lard, meats, sugar, or butter and cheese, and the world will consume it at good prices; but such will not be the case until bee-keeping becomes more of a specialty.

Mr. Hofstetter said he thought all persons who liked keeping bees should be advised to do so, but, as a professional bee-keeper and honey producer, he did not think it advisable for bee-keepers to advise the public generally to go into the business, as it would bring them in strong competition with ourselves, and tend to lessen our profits.

Dr. Allen thought that some were adapted to one profession, and some to others, and that only a certain class, not one scarcely in a hundred, would succeed in bee-keeping. He once thought all persons should keep bees, but he had changed now, and thought only those who were adapted to the business should be advised to keep them.

Mr. Schneider thought the matter would regulate itself, and those not fit would soon give it up in disgust. He did not fear the competition.

Mr. Cook argued that bee-keeping was not a specialty. It requires no particular talent, no more than to raise corn, make cheese or raise fruits. He thought bee-keeping might be well extended among the people as any other business.

Mr. Williamson remarked that Mr. Newman had said that the demand for American honey in Europe was on the increase, and that it could never be filled, as with increase of supply the increased demand arose.

An essay by W. T. Stewart, Eminence, Ky., was read, on

Honey Producing Plants and How to Cultivate Them.

As I furnished an article on this same subject for the National Convention at Lexington, which will be published in the AMERICAN BEE JOURNAL, I shall now go over the same ground of "comparing advantages and disadvantages in order to know what is best to cultivate," but will only continue that article, and give a few brief hints as to lawn-planting of honey producing plants.

As I have clearly shown in the former article that figwort (or Simpson honey plant), motherwort, catnip and melilot are the 4 best plants (to my knowledge) for cultivation, I will now give you a practical pen-picture of a most beautiful lawn or door yard, and especially beautiful to a bee-keeper, and passers-by will, from the novelty of plan, pronounce it superb, as I know from experience. While I am in my photographic studio at the front of my door yard with about an acre of lawn (in which my apiary is located) between my gallery and dwelling, I often hear such remarks as "Just look at that yard, ain't it beautiful?" "Here is that pretty yard that I told you about." "He's got the prettiest yard in town, ain't he?" "He is a perfect genius; can take a patch of weeds and make it look pretty. I never saw such a man, he never stops fixing pretty things." Now, while I enjoy all this praise, I at the same time enjoy seeing my bees working on almost everything growing in this yard. My pretty weeds are all honey producers, you know, and did not come there by accident, either. Now I tell you how to do it, and after you have once seen such a lawn, you will be surprised at its grandeur, and why you had not thought of all this before.

To make a beautiful mound, or what will appear to be a mound, yet is only level ground, plant that which grows tallest in the center of a ring or circle, next tallest outside of that, and so on down to a creeping ground plant. For instance, you want a mound twelve feet across, six or eight feet high in center, gradually sloping off lower until it is on a level with the ground. You will first mark it off in rings, say eighteen inches apart. Now transplant in the center ring eight or ten fine plants of figwort; it grows six to eight feet high, filled with beautiful seed pods as large as buckshot. Next row transplant with golden rod; grows four to six feet high. Next row plant in spider plant; three to five feet high, and its pretty pink flowers contrasting strikingly with the golden rod. Next row transplant with motherwort and catnip mixed equally; two feet high; bloom white. Next row plant princess feather; bloom is scarlet and an excellent honey plant. Next row, white mustard; one foot high; bloom golden yellow. Next row transplant peppermint; bloom white. Last row, ground ivy, a creeping vine, and good for bees. This will, when grown up, appear to be a costly mound, most beautiful to the eye of man or bee. We can make a basin in the same way by reversing the plants, putting the lowest in the center, and so on. By a little study and ingenuity in planting we can contrive many pretty designs that cost nothing, and have every plant to pay nearly as well as vegetables in a garden. Plant in groups of various colored bloom and varied foliage, too, among our bee-hives, making them contrast with the color of the hives, etc. Plant a row of basswood, poplar, locust, elm or maple all round the fence, and keep trimmed nicely. Plums, pears and cherries among your hives for shade, honey and fruit; gooseberries, currants and raspberries can all be made ornamental in the shape of hedges around poultry yards, garden walk,, etc., and all are good honey plants, too.

For trellises, around porches, verandas and windows as a running vine, there is nothing superior to the Clematis for beauty, shade or honey. Various colored hollyhocks may be used to advantage in grouping or single; it is also a good honey producer, but better for pollen. A few stalks of buckwheat worked in for variety or contrast, don't look badly. Make a border of peppermint on each side of every walk and outer edges of flower beds, and even around the door and gate, so that every time there is any passing around the clothing or feet will brush against the peppermint. In this way your lawn is constantly perfumed, and you will be surprised to see how much mint you can have growing in this way, and also surprised to see how the bees take to it through August and September—just when they need it. If you have a low, wet spot on your grounds, plant there a clump of willows. With a group of six or eight willows growing on your lawn you can make it the center of attraction. By bending and tying them together you can make them grow in every conceivable shape—chairs, ladders, hoops, etc., can be had growing; besides, it is beautiful as a shade tree, and one among the most useful of all honey producers, because it comes so early in the spring and is full of nectar for early use. Plant a tree of either elm or basswood (twelve feet apart is about right), one on each side of your gate; when they arrive at the right height bend and tie them together in the form of an arch; keep them tied until they have grown in that shape. An arch over the gate is pretty, and these trees are good for forage.

Make a ring or diamond of ten feet in diameter and transplant into it dandelions six inches apart all around the outside, then fill up the center by transplanting wild turkey peas, thickly set. This is very pretty; early in spring the bed will be white as snow and the border yellow. Both are good honey producers, and they come so very early that they are quite a luxury for our bees. A hedge all around the fences of motherwort is quite a bonanza. You will notice that most all the plants I have named for ornamenting are such as will only require planting once, and come from the old root for years afterward. Remember, that it is the design and in the ingenuity displayed in planting that attracts the attention of visitors more than the quality of plants. Common plants when ingeniously modeled are prettier than costly green-house plants scattered helter skelter, without any pretense to form or model. But when you have laid out beautiful models of common plants, your wife will be sure to improve their appearance by the addition of a few pet green-house plants, which are not honey producers themselves. But they won't drive the bees away from those that do produce it. When once we have introduced this novelty in our town we will soon see our neighbors trying to imitate it more or less, because of the novelty of it (not for bee forage). But our bees will go over and appropriate it to their use just the same as if it was purposely for them. But we must keep still as to the purpose of such a lawn, and let people just think that the novelty of the thing is the main point, if we wish them to appreciate it or pattern after it on their own lawns. If people in general knew that such a lawn was intended for forage for bees, it would lose half its charms in their estimation; but work on, getting up novelties, and say nothing about the bee part of it, and you will see that it is contagious, and people will gradually fall into novelty lawn planting.

Col. Nall was particularly pleased with the encouragement in this paper to beautify homes. Then that mint—no one but could find use for that.

Dr. Allen thought the number of honey-producing plants might be increased around farms, and add to the supply of honey, especially in the fall.

Mr. Cook thought the wild aster an excellent honey-producing plant. It is spreading in Southern Kentucky in low, rich bottoms, and bees swarm around it. He also said the prickly ash was another useful plant. It will grow almost anywhere, blooms about mid-summer, and makes a large blossom bunch. Bees like it. He said raspberries were good honey-producing plants, both bloom and fruit of the red being excellent. The strawberry was worthless for bees; the pear blossom was not good for bees, but the peach first rate. Wild cherry is good, but domestic kinds do not amount to much. Wild grape and crab are both good. Among garden flowers the double varieties are valueless, but the single ones afford bee pasturage.

Dr. Allen said the honey of prickly ash was strong-flavored, and the honey gathered from it was not salable. It is not recommended by apiarists.

Mr. Schneider said the necessity was for plants to come into the space between fruit bloom and after the white clover.

A gentleman stated that he had the spider plant and the Simpson honey plant. The bees refused spider plant as long as the white clover was in bloom, but took to it when clover was gone.

Mr. Schneider, in answer to a question, stated that buckwheat could not be depended upon, giving out honey only on occasional years.

Dr. Allen said coral berry was a valuable honey plant for fall.

Dr. Kaye asked about corn, and the opinion was expressed that the bees gathered pollen, but not much honey.

Mr. Cook thought the cow pea was a valuable blooming plant.

Dr. Kaye exhibited some beautiful honey.

Adjourned till Thursday at 9 a.m.

[Concluded next week.]

New York Bee-Keepers' Union.

The Eastern N. Y. Bee-Keepers' Association held their 8th semi-annual Convention at Knowersville, Sept. 27.

Called to order at 10 a. m., by President W. D. Wright.

Minutes of the last Convention were read and approved. The Treasurer's report was read and approved.

Question: What is the best method of marketing honey?

W. Tennant. I think we are in too much hurry to crowd our honey on the market. Is it best to report our crop and let the world know how much we have? It is bad on one account; it makes the buyers think the crop is large, and thereby we may lose; on the other hand, I think it is best to report to the commission merchants, that they may have a better chance to fix the price and sell our honey. One commission merchant told me he was deceived last year, by the bee-keepers saying the crop was small, and thereby he held his price too high and had to carry some over.

W. L. Tennant. I cut my surplus boxes down from 12 lbs. to 5 lbs., and from that down to the 2 lb. prize box, and can get more honey now than with the larger ones; but some are calling for still smaller boxes. It is an imposition. Why should all use 1 lb. boxes? A few may sell better. You should use the 2 lb. boxes, and nail them strong so they will go to market without leaking or smashing. Make your box 5x6, so as to use regular size glass, because it is always in the market, and we can obtain it on short notice, and cheaper, besides odd sizes cost more; for every fraction of an inch you have to pay for an inch, the world over.

A. E. Manum. I like the 1 lb. box best; I can get just as much honey as in the 2 lb. boxes, and get 2 cents more per lb. for my honey. I can get the bees to work in them sooner by their being low, and when half full raise them up and put an empty set under them, and so on as needed.

W. L. Tennant. I do without the 1 lb. box entirely, and the price of honey in the 2 lb. box will be just as much as for the 1 lb. box. I must differ with Mr. Manum; they will make 25 per cent. more honey in the 2 lb. box. It is best to establish a medium box, neither too large nor too small, which all can adopt, and then we can sell our honey to the poor, and all can afford to eat it. Now, is it best to sell our honey out-and-out, or send it to the commission merchant to sell for us? They skin us alive. I think it best to sell out-and-out, and then we know what we are doing.

A. E. Manum. My bees will cap 1 lb. boxes better than 2 lb. boxes, and suit the market better.

W. L. Tennant uses but one kind of box, placing it on top and not at the side, as they will not fill them out as well.

A. E. Manum. I think sections or boxes ⅛ of an inch thick is plenty; bee keepers are using sections and crates too heavy; it takes more lumber, costs more in shipping, and people will buy the light box quickest.

G. H. Adams. I like the 2 lb. box best; I tier them up, and they work well.

F. Boomhover. I have had colonies tiered up higher than my head with 1 lb. boxes this summer, and took 190 lbs. of honey from one colony.

G. Van. I can get more without tiering up.

On a vote being taken, 16 were in favor of 2 lb boxes; for 1 lb. boxes, no hands up. Adjourned till 1 p. m.

AFTERNOON SESSION.

Question: Which are the best bees for all purposes—blacks or Italians?

W. L. Tennant. Italians or hybrids for valleys where there is white honey; the backs on hill-tops, where the main crop is buckwheat.

A. E. Manum. Cyprian bees are stingers. I like the Syrian bees; they are very prolific, more so than the Italians; but as far as my experience goes, I like the Italians best. I think a cross between the Syrians and the Italians will be good; I have some, but not much experience with them yet; will test them next summer.

Question: If a black queen mates an Italian drone, or *vice versa*, how will the bees be marked?

W. L. Tennant. I can see no difference in which way they mate.

W. D. Wright. One-fourth marked; one-half if mated the other way.

Adjourned to meet at Central Bridge, on Tuesday, Jan. 10, 1882.

N. D. West, *Sec.*

Northern Texas Convention.

The bee-keepers of Northern Texas met at the Court House in the city of Sherman, Wednesday, Oct. 5, at 11 a. m., for the purpose of organizing a Bee-Keepers' Association. The meeting was called to order by Col. Cockrell, of Sherman, and Mr. W. A. Robinson was appointed Secretary. An opening address by the Hon. Joseph Bledsoe, who made an appropriate speech. The meeting then proceeded to organization. A committee on permanent organization was appointed, consisting of Dr. A. F. Wright, W. F. Woodward and M. S. Klum. A committee was also appointed to draft by-laws and a constitution, consisting of Messrs. J. L. Mulkey, Dr. Brockette, E. P. Keywood, Hon. J. Bledsoe, J. H. Choice and M. H. Davis to report at a meeting called for Saturday, Oct. 29, 1881, in the city of Sherman.

After the appointment of this committee, the meeting adjourned till 2 p. m., when the members reassembled, not as an association, but to discuss among themselves the different points in their profession. They had a very pleasant social meeting, and every one went away knowing something more of bee-culture than they did before.

W. A. Robinson, *Sec.*

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.

N. E. France, *Sec.*, Platteville, Wis.

☞ The Michigan State Bee-Keepers' Association, will convene at Battle Creek, on Thursday, Dec. 8, 1881. We have reason to expect one of the largest and most interesting meetings we have ever held. Let all arrange to be present. All District Associations should send delegates. Each person should come with their best experience in their hands, ready to hand it over to the others of the fraternity. It is hoped that all will bring the fullest report possible from their region. Commutation rates are expected on railroads. A. J. Cook, *Pres.*

T. F. Bingham, *Sec.*

☞ A meeting will be held at Winterset, Iowa, on Thursday, Nov. 3, 1881, to organize a District Convention. All the apiarists of the vicinity, as well as from other States, are cordially iinvited. A. J. Adkison.

SELECTIONS FROM OUR LETTER BOX

Goldenrods as Honey Plants.—I send a specimen of a weed that I wish to know the name of, and which is the main source of late honey here. It is almost frost and drouth-proof, blooms from the latter part of September until some time in November. My bees, which had scarcely a drop of honey 10 days ago, have filled their hives and are beginning to cap the honey, which is almost all from this bloom. The plant grows on bottom lands, and attains a height of from 18 to 24 inches, and in some places forms a beautiful sea of golden yellow.

Noah Deaton,
Carthage, N. C., Oct. 10, 1881.

[The specimen sent is a Solidago (goldenrod). There are several varieties, and all are excellent honey plants. —Ed.]

Feeding Bees.—I had 8 colonies in the spring, have now 23; have taken 303 lbs. of comb honey in prize boxes. The season was pretty good for a short time, but we have had such a severe drouth that bees have been doing no good for over 2 months. I fear many of them will starve to death unless fed pretty liberally. I brought home 100 pounds of granulated sugar yesterday, made some syrup and fed on tables 2 or 3 rods from the hives. In a short time there were thousands of bees at work at it, and some of them stayed with it all night, and they are at work at it yet, although it is sprinkling rain, and it is now 4 o'clock. Will this way of feeding do? Joel Bremer.
Lincolnville, Ind., Sept. 23, 1881.

[It is not a good way to feed—1. Because it incites to robbing; 2. If there are other bees in the neighborhood, you feed those as well as your own; 3. You lose many bees by the fighting and besmearing which will more or less prevail. Feed inside, or at the entrance at night, being careful to avoid daubing the hive.—Ed.]

Moving Bees.—I have 13 colonies of bees about half a mile from home; will it do to move them? I am afraid they will return to the old place. Answer in the Bee Journal. W. P. Bond.
Quiet Dell, W. Va., Oct. 14, 1881.

[You can move them any time, and any distance. After the removal is made, let the hives remain closed till about noon, then slant a board in front to partially obstruct the entrance, and release the bees. Let the boards remain a few days. The above will also answer the query of J. C. Burns, Terre Haute, Ind. Of course, such weather must be selected as will allow the bees a good flight soon after moving—Ed.]

Two Queens in one Hive.—One evening in August, I was viewing one of my colonies through the observation glass at the end of the hive; I saw a fine young queen crawl around the end of a frame. In a day or two I opened the hive to examine my young queen. On the third frame was the cell from which she had emerged perhaps a week ago. On the fifth frame was the old queen all right and lively. I closed the hive and concluded she had dispatched her daughter. About a week later, a friend paid me a visit, and, as he had never seen a queen, I opened the same hive. On the second frame was my young queen. I removed 7 frames (leaving 2) looking for the old queen, and, not finding her, I closed the hive, thinking now that she was dead. A few days later a neighbor called, and I opened the hive again to show him the young queen, when I was astonished to find both old and young on different frames. To-day I made another examination, and found both on the same frame not more than 2½ inches apart, both lively, and I discovered that my young queen has mismated, there being quite a number of hybrids about. I have a notion to pinch her head right away. Will it be right or wrong? The old queen I purchased in 1879, of D. A. Pike. She is nice and prolific, and her workers are good honey gatherers. W. R. Young.
Myersville, Md., Sept. 25, 1881.

[If you do not want hybrids, you had better not keep the mismated queen, unless her mother is too old for wintering, or you can give the colony another in its place.—Ed.]

Deep Frames for Winter.—I have kept and handled bees for upwards of 50 years; during this time I have had almost all kinds of hives that were invented. For many years the only hives we used were the upright, square box, about 18 inches high, and the straw basket, and fire and brimstone were the only mediums through which to obtain the honey. While using these hives we knew nothing of winter killing or spring dwindling. I now use none but the Langstroth hives. I prefer it on account of its convenience in manipulating bees and small honey boxes. Last fall I had still one of the old boxes, with an old colony, and old black combs. Thinking it almost worthless I put it in the cellar without any attention, while those in Langstroth hives, all in good condition, had the best of care. The result was in the spring that all the bees in Langstroth hives were dead but one, and it very poor. Those in the old box-hive were as good as in the fall. This experience led me to the conclusion that a higher box than the Langstroth would be preferable for our climate to winter bees, I accordingly made a hive, a model of which I send you by mail to-day. The proportions of the model are not correct, it is too high. The small board in front is the middle of the box. The box inside is 10x13 inches and high enough to use the Langstroth frame placed in on the end as you see in the model. Here we have the Langstroth frame, the 2-lb. honey boxes, 12 in number, the same freedom of manipulating, and the old upright box all combined. I have also an additional entrance over the small board in front with a slide over for closing. What is your opinion about the box? Bees did pretty well with us this summer.

D. Lantz.
Forreston, Ill., Sept. 29, 1881.

[We do not think you will long be satisfied with your new hive. The extra depth of frame will make it very inconvenient to manipulate, and we doubt its immunity from loss in wintering. Certainly, last winter's experience was no guaranty of success for the "old box hive."—Ed.]

My Coming Bees.—Considerable is written about the coming bee; I have a whole hive full of them. I was at work with them a short time ago, when one of my neighbors came into the yard and took a position about 10 feet in front of the hive. I told him he would feel better to stand back of the hive with me; "Oh," said he, "bees never sting me;" just then one took him on the end of his nose, and the last I saw of him he turned around the corner of the house, with tears running from both eyes, arms stretched full length, as he exclaimed, "Hallelujah! blast your gol darned bees!" These bees are little black fellows, and I took 48 1-pound sections from them.

James Ronian.
Villisca, Iowa, Oct. 11, 1881.

☞ The Western Michigan Bee-Keepers' Association will meet in Berlin, Ottawa, Co., Mich., Thursday, Oct. 27, 1881, in Huntley's Hall, at 10:30 a. m. All interested are cordially invited. Wm. M. S. Dodge, *Sec.*
Coopersville, Mich., Aug. 29, 1881.

Special Notices.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

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Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆

☞ Articles for publication must be written on a separate piece of paper from items of business.

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Photographs of prominent Apiarists —Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

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Deserving Articles are Always Appreciated.—The exceptional cleanliness of Parker's Hair Balsam makes it popular. Gray hairs are impossible with its occasional use. 40w4t

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Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

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◆

It is the Height of Folly to wait until you are in bed with disease you may not get over for months, when you can be cured during the early symptoms by Parker's Ginger Tonic. We have known the sickest families made the healthiest by a timely use of this pure medicine.—*Observer*. 40w4t

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☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

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For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

◆

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL,
Monday, 10 a. m., Oct. 24, 1881.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@22c.

AL. H. NEWMAN, 972 W. Madison St.

CLEVELAND.

HONEY—There is a slight improvement in our market for comb honey. One pound unglassed sections find ready sale at 21c. for white, and 20c. for 2 lb. sections. Extracted honey continues dull at 10@12c.

BEESWAX—20@22c.

A. C. KENDEL, 115 Ontario Street.

NEW YORK.

HONEY.—The advices give a middling fair crop of honey. Moderate lots have arrived, but the demand so far has been very slow, and but little improvement can be expected until we have cooler weather.

We quote as follows: White comb, in small boxes, 18@20c; dark, in small boxes, 15@17c. Extracted, white, 10@11c.; dark, 7@9c.

BEESWAX.—Prime quality, 21½@23c.

THORN & CO., 11 and 13 Devoe avenue.

CINCINNATI.

HONEY—Is in good demand here now.

I quote: Good comb honey, in sections, is worth 18@20c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

BOSTON.

HONEY.—1-pound combs are a desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 21@22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 20@25c.—*Indianapolis Stock Review.*

SAN FRANCISCO.

HONEY—Of last week's receipts 334 cases went direct on board a vessel for Liverpool. Sales, as far as reported, are of a retail character, asking prices restricting trade in a wholesale way. Considerable old honey is still on the market, some of it having been received this season.

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 9@10c.; dark and candied, 7@8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.

ST. LOUIS.

HONEY.—In fair request. Strained, 8c.; extracted, 9c.; comb, 16@18c—latter for bright.

BEESWAX—Prime yellow sells at 19@20c.

R. C. GREER & CO., 117 N. Main Street.

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX—Best light 23@25c.—*Philadelphia Merchants' Guide.*

Local Convention Directory.

1881. *Time and Place of Meeting.*

Oct. 25, 26—Northwestern District, at Chicago, Ill.
C. C. Coffinberry, Sec., Chicago, Ill.
27—Central Michigan, at Lansing, Mich.
George L. Perry, Sec.
27—Western Mich., at Berlin, Mich.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.
Dec. 8—Michigan State, at Battle Creek, Mich.
T. F. Bingham, Sec., Abronia, Mich.
1882.
Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
27—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

◆

Badges.—Bee-keepers going to fairs should wear a badge with a gold bee on it. It will serve to introduce him to other bee men. We will send them for 10 cents, post paid.

◆

☞ Subscriptions may commence with the first number of any month in the year.

◆

Try Kendall's Spavin Cure, a sure remedy for spavins, curbs, ringbones, or any enlargement of the joints. See advertisement. 34

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Quart, " 2½ " " ...	1.20....	7.00
Pint, " 1¼ " "	.75....	4.00

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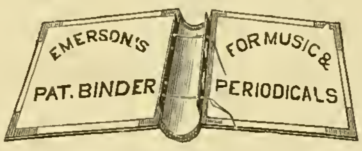

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This work is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. It is fully "up with the times" on every conceivable subject that can interest the apiarist. It is not only instructive, but intensely interesting and thoroughly practical.

—:o:—

Read the following opinions of the Book;

All agree that it is the work of a master and of real value.—*L'Apiculture*, Paris.

I think Cook's Manual is the best of our American works.—LEWIS T. COLBY.

It appears to have cut the ground from under future book-makers.—*British Bee Journal.*

Prof. Cook's valuable Manual has been my constant guide in my operations and successful management of the apiary.—J. P. WEST.

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Is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without.—*Nebraska Farmer.*

To all who wish to engage in bee-culture, a manual is a necessity. Prof. Cook's Manual is an exhaustive work.—*Herald*, Monticello, Ill.

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It is the latest book on the bee, and treats of both the bee and hives, with their implements. It is of value to all bee-raisers.—*Ky. Live Stock Record.*

It is a credit to the author as well the publisher. I have never yet met with a work, either French or foreign, which I like so much.—L'ABBE DU BOIS, editor of the *Bulletin D' Apiculteur*, France.

It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat*, Pulaski, N. Y.

We have perused with great pleasure this *vade mecum* of the bee-keeper. It is replete with the best information on everything belonging to apiculture. To all taking an interest in this subject, we say, obtain this valuable work, read it carefully and practice as advised.—*Agriculturist*, Quebec.

This book is pronounced by the press and leading bee-men to be the most complete and practical treatise on bee-culture in Europe or America; a scientific work on modern bee management that every experienced bee-man will welcome, and it is essential to every amateur in bee-culture. It is handsomely printed, neatly bound, and is a credit to the West.—*Western Agriculturist.*

This work is undoubtedly the most complete manual for the instruction of bee-keepers which has ever been published. It gives a full explanation regarding the care and management of the apiary. There is no subject relating to the culture of bees left untouched, and in the compilation of the work Prof. Cook has had the advantage of all the previous knowlede of apiarists, which he uses admirably to promote and make popular this most interesting of all occupations.—*American Inventor*

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—:o:—

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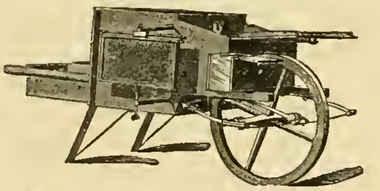

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OLDEST BEE PAPER IN AMERICA

THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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EDITORIAL

Dr. J. P. H. Brown's Address.

For several weeks we have been obliged to delay the publication of Dr. J. P. H. Brown's address before the National Convention at Lexington, owing to its length, but not one paragraph or sentence could we omit. We give it this week in its entirety, on page 347, and bespeak for it a careful perusal.

The Doctor ranks high in his scientific attainments, and has spent much of the past season in practical experiments. It will be observed he inclines to the opinion that the Syrians are the progenitors of the yellow species, in which, we believe, he agrees with Prof. Cook, and which opinion we long have held. Particularly gratifying is the result of his measurement of the tongues of the different races, proving conclusively that we were correct in our repeated assumptions of the improvement of the Italian bees in America, and Italian bee-masters acknowledge that we have not permitted any deterioration. In view of what has been accomplished in this line, what a field is opened to our careful breeders to engraft upon our best bees the desirable traits of the newer races, if they possess any. Italy and all Europe look to America for the coming bee—let us not disappoint them.

While calling the especial attention of all American apiarists to the two concluding paragraphs in Dr. Brown's address, we thank him for his able constructive indorsement of the utterances of the Bee Journal on the same subject.

◆

Canadian Honors.—The following letter has been duly received by the editor of the Bee Journal:

T. G. Newman, Esq., Chicago.

Dear Sir:—At the annual meeting of the Ontario Bee-Keepers' Association, you were, by resolution, made an honorary member of the Association. I enclose your membership ticket.

Yours Respectfully,
R. McKnight, *Sec.*

The ticket was accompanied by a very neat and attractive copy of the "Constitution and By-Laws," with the list of officers for the present year. It is needless to say that we appreciate the compliment. The tasteful appearance of both the Constitution and member's ticket bespeak great credit for the efficient Hon. Sec., R. McKnight, Esq.

◆

☞ The Texas State Bee-Keepers' Convention will be held at McKinney, Texas, on Tuesday, April 25, 1882.

◆

☞ The editor of the *South and West* is being imposed upon by Lizzie E. Cotton, who is endeavoring to work upon bee-keepers, by giving flattering yields of honey with her "new system of bee management," and "controlable hive." After the hundreds of persons who have reported that they have sent her money and get *no returns*, it seems strange that any one should be deceived by her advertisements. She promises to use the *South and West* to give further reports. If that paper will thus freely give them, after she has been refused advertising space in all the respectable journals of the country, it must be totally in the dark about the matter. We hope, however, that the *South and West* will not so impose upon its readers, after this warning. We have no interest in any hive, and only point this out to our cotemporary, in justice to it and its patrons. In many localities the present season has been exceptionally good for honey production, and large yields are reported in almost every kind of hive. Such, therefore, should be credited to the locality or season, or both, and not to any form of hive, and there is no necessity for any one to be deceived by such statements, and inveigled into sending money to irresponsible persons for hives or bees.

The Drouth in Europe.—The excessive heat and drouth of the past summer has caused a shortage of one-fourth on the crops in Europe, including the honey crop. France will have to import over fifty millions of bushels of wheat to supply her home consumption. England, Austria and Germany also report a shortage. Hay is so short in Germany as to cause much anxiety, and Consul Warner writes concerning it as follows to the State department at Washington:

On information derived from a very good source, it was ascertained that the present prices for hay are double those of last year. It would be unfortunate for the wretchedly poor laboring class in Germany if anything like a failure in crops should happen that is now predicted. In my opinion, it would be the cause of greatly increasing the tide of emigration to America, the land that has an attraction surprisingly wonderful for the German peasant. Their sole ambition seems to be turned in the direction toward America. Even the old and infirm become comparatively younger whenever America is talked about in their presence, and they are told of the abundance of breadstuffs that is to be had there.

◆

Old Combs.—We see the following item going the rounds of the agricultural papers:

Old combs can be nicely cleaned by pouring water over them and throwing it out with the extractor; pare off the moldy part with a knife.

Such advice is too antiquated—it might have passed ten years ago, but will not do now. Better to melt up the old combs and give the bees comb foundation. It will pay better than to fuss with any "old comb" remedy, particularily if it is moldy.

◆

☞ Mr. S. D. Buel's crate for honey, on exhibition at the Chicago Convention last week, is now in our museum. See its description on page 350 of this Journal.

◆

☞ "I would not have missed attending the Chicago Convention for $20; the discussions were so very instructive." So said one who visited our office four days after the Convention closed. Such discussions are very interesting, and in some respects the late Chicago Convention was a model affair.

◆

☞ It will pay to devote a few hours in getting up a club for the Bee Journal. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

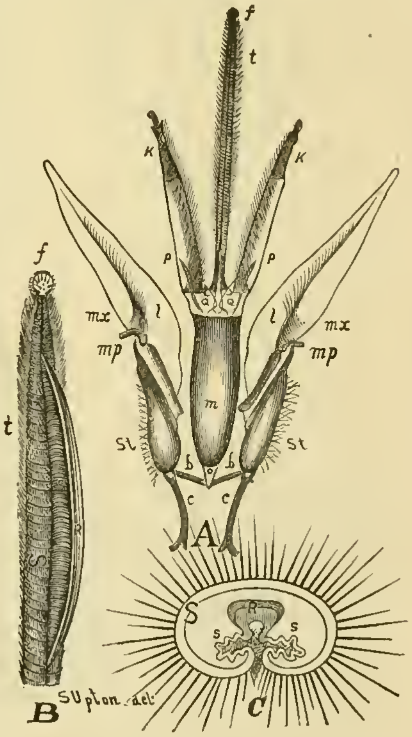
CORRESPONDENCE.

Read before the Association for the Advancement of Science, at Cincinnati, O.

How the Bee Extends its Tongue.

PROF. A. J. COOK.

The figure, from Cook's Manual of the Apiary, gives an accurate idea of the structure and parts of the tongue of the honey bee. *A* gives the parts as they appear when extended; *B* shows the ligula with the tubular sheath (*s*) fully extended, and *C* shows a cross section of the ligula when the sheath is not extended. In this figure, *ss* represents a colorless membrane, which is usually folded as seen in the figure, but which is put on the stretch, when the sheath is distended as seen in *B*. The central rod (*r*) is essentially a tube, as I showed two years since in the American Bee Journal, vol. 15, page 490; but it is slitted below, so that by the use of the muscle *r*, in *C*, the bee can open this along its whole length. This tube, and also the sheath (*s*) connects through the tubular mentum (*m* in *A*) with the œsophagus, and so with the stomach. Just at the base of the mentum, as shown by Mr. Justin Spaulding, in *American Naturalist*, vol. 15, page 113, this tube receives the tube from four large compound racemose glands, two of which are in the head and the others are in the thorax.

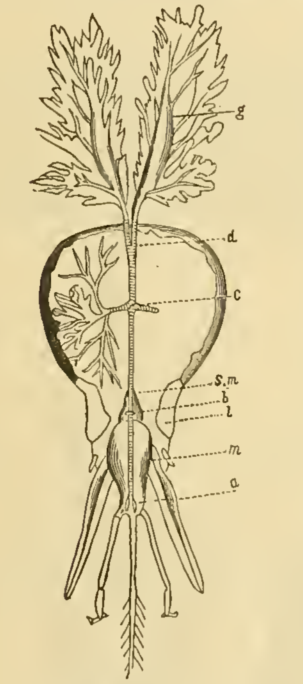


Tongue of the Honey Bee.

We see, then, that secretions from these glands may be poured into the tube of the central rod, or into the tubular sheath. The tubular rod opens at the tip of the ligula (*f* in *A*), but the tubular sheath is imperforate except at its base, where it joins the tube of the mentum, and so has connection with the duct of the glands, with the œsophagus, the mouth and the tube of the central rod.

When the mouth-organs are not in use, the tip of the ligula, *f* in *A*, extends only to the tip of the labial palpi, *K*, *K* in *A*, and all the parts, *t*, *K*, *K*, and *mx*, *mx* in *A*, are doubled back under the head. By the action of several pairs of muscles, variously attached to these parts and to the head, these parts are straightened, preparatory to use; then by the injection of liquid into the tubular sheath, the ligula is fully protruded. By holding a bee between the fingers (a bumble bee is the best), we can see the tongue vary in size as it is protruded or retracted as we offer it sweets. Of course, a good lens is necessary in this demonstration.

The source of the liquid that extends the tonge is, I think, that which comes from the glands already mentioned. If we take a dead bee that is not rigid, and whose sucking-stomach is full of honey, and press on the abdomen, the nectar will come forth from the mouth-opening, and not from the end of the ligula. The sheath does not expand, and of course the ligula is not pushed out. But if we press on the mentum, either when the stomach is empty or when it is full, then the sheath is distended, and the tongue is pushed out. In thus pressing the mentum of a bumble bee till the sheath was burst open, I have found that the liquid that came forth was often entirely without sweet taste. Therefore, unless it came from the salivary glands, it must have come from the glands described above. It is hardly supposable that the mucous from the tube would be sufficient. Again, it is just as necessary for the tongue to be thrust out—yes, and more necessary—when the sucking-stomach is empty, as when it is full. But if nectar from the stomach is what is used, how would the bee extend the tongue when the sucking-stomach was empty? The enlarged ducts from the glands would, on the other hand, always have the material ready to effect this important purpose.



Glands and Tube,
Diagram reduced from American Naturalist.

It has been suggested that the secretion from these glands is used to change the nectar into honey, or in case the bees are fed cane sugar, to change a part of the cane sugar to grape sugar. That such a change is brought about is certain, but it is done in the stomach, and if the secretions referred to perform this function, they must be carried down with the honey. Thus, they would perform two functions, one a physical and the other a chemical. This is thought to be true of our own saliva, by many physiologists. It certainly aids in comminuting the food, and many think that it aids in transforming the starch of the food into grape sugar.

Lansing, Mich., Aug. 18, 1881.

For the American Bee Journal.

How I Winter Bees Successfully.

G. W. ZIMMERMAN.

After 29 years' experience with the movable comb bee-hive, my success has depended on judgment as regards the winter, whether mild or severely cold for a long time, and the condition I find my bees in. First, how to prepare them for winter, and the treatment thereafter. There has been so much written on this point, I will only say see that each colony has 20 to 25 pounds of honey in September—whether gathered early or late makes no difference, so it is ripe, with proper winter passages through the combs. I regard it as essential, when the bees are having their last flights in the fall, to remove the cloth or honey board and place two sticks across the frames, then a piece of coffee sacking single or double: lay thereon two very dry bricks, not too hard burned; now I use clover-chaff, sawdust, fine straw and forest leaves well mixed together, with which I cover the sacking and brick 4 inches deep. This will absorb all the moisture arising from the bees. Thus treated, we will hear no more about taking out the top packing, drying it, and putting it back again. The above preparation will do for in or out-door wintering.

I have tried the following experiment several times, with success in in saving my bees: A few years ago the bees were nearly all dying off with dysentery in this neighborhood. I examined my 65 colonies in the house, and found nearly all uneasy, very wet, and bodies distended. I procured a stove, set it up in the house, and removed the top cloth and front block, and heated the room quite warm. All the bees that were affected with dysentery came out all over the hives. I done this twice, from evening till midnight, keeping it dark; they all dried off, and clustered quietly back in their hives again. They had discharged their feces, coming out and going back. The result was, I saved all but two queens. I will practice this again if any become uneasy, and give the result in the spring.

Napoleon, O., October 8, 1881.

For the American Bee Journal.

My Honey Report for 1881.

G. M. DOOLITTLE.

By turning to page 217 of the BEE JOURNAL for 1881, the reader will find that my bees were united down to 30 colonies, to get them in shape so I could reasonably expect a profit from them; and how it was so wet and cold up to the 27th of June that the bees could do but little on white clover, as well as a full report of my apiary up to that time.

On June 29th the weather became favorable, and the bees went to work in earnest on the remaining clover so as to store a little surplus. Basswood bloom opened July 8, and I expected to see a "rush" made for it by the bees, as usual; but to my disappointment, there seemed to be but little honey in it, and when the end came my hopes were nearly blasted, for I had taken scarcely a box of honey up to this time. Basswood is generally my main dependence for a honey crop, but this season proved that nearly a failure from it may be expected one year in eight or ten. However, the bees were in the best possible condition to take advantage of it, so I could not blame myself for not having done my part well.

Red clover has not blossomed with us for several years past, on account of a worm working in the head, and I was quite a little surprised, along the latter part of basswood, to see fields of the large kind growing red with blossoms. As the fields became redder, I hoped the bees might yet store some from this source, but did not expect such a yield as was finally obtained. Teasel was also now in full bloom, and the few acres that were within the range of my bees' flight commenced to yield abundantly. The combs in the boxes commenced to grow as if by magic, and the bees poured out for the clover and teasel fields in about equal proportions, working from early morn till late at night. Thus 10 days were passed, when the yield gradually drew to a close, terminating about the first of August. Acres of buckwheat soon began to be white, but day after day passed and no yield from that source. Thus the season for 1881 was ended. Four years have now passed since bees in this locality have stored a surplus from buckwheat, so that with me a honey yield is the exception rather than the rule.

As a result of my season's work I have to report: comb honey, 3,317 lbs., and 718 of extracted, giving a total of 4,035 lbs., or 134½ lbs. to the colony for an average. The 30 were increased to 80, which are in good condition for winter. When spring opened I only had one really good colony, and this I concluded to work for extracted honey. I will give the result, so the reader may know the amount of honey gathered from the different sources: Willow, 5½ lbs.; apple, 19¼ lbs.; white clover, 58¼ lbs., basswood, 97 lbs.; red clover and teasel, 232 lbs.; making a total of 412 lbs. I have also reared and sent out 83 tested queens the past season, which, of course, quite materially lessened the yield of honey.

I worked an apiary of 15 colonies away from home, and from this I obtained 874 lbs. of box honey, and 1,400 lbs. of extracted, giving a total of 2,274 lbs., or 151½ lbs. per colony.

Nine years ago I commenced to keep a correct account with the apiary, and I find, by looking over said account, that the average yield of honey per colony for the last 9 years foots up 92 pounds for each year. Thus, if a man keeps 100 colonies of bees, he will have 9,200 lbs. of honey for his yearly income, worth at least 15 cents per pound, giving a cash income of $1,380. Who will say bee-keeping does not pay as well as any other pursuit in life?

One result of the past season has pleased me very much, which is that nearly all our colonies of bees gave about an equal result. I have been breeding for years to see if I could not get all colonies to come up to the standard of the best, and not have one colony give a large yield and another nothing. When we, as apiarists of America, can so perfect our bees that all colonies shall give as good results as have been obtained by the best in the past, then there will be no need of further importation of bees, for *Apis Americana* will be the best bee in the world.

Borodino, N. Y., Oct. 18, 1881.

AMONG OUR EXCHANGES

MISCELLANEOUS.

District Meeting in Indiana.—The Indiana *Farmer* gives the following notice:

As will be seen by the notice given last week, Mr. Charles Schofield, Vice President of the State Bee-Keepers' Association for this district, has called a meeting of the bee-keepers of Marion and adjoining counties, to meet on Saturday, Nov. 5, for the purpose of organizing a local Bee-Keepers' Society. There is quite a large number of bee-keepers within the territory embraced in the call, and there is no reason why we should not have a good, strong local association. There is no question as to the benefit to be derived by societies of this kind, and we hope there will be interest enough shown to make the meeting a success.

* * *

A Fierce Combat.—The Louisville *Home Journal* of last week tells the following little story concerning the fighting qualities of the Cyprian bees:

A devotee of apiculture within hearing of the bells of Eminence, Ky., procured a colony of Cyprians, of which he was very proud. But one day his pets became excited, and made a vigorous attack upon their master. Retreating to the house, he put on his veil and gloves, tied strings around the ankles of his pants, and went out with smoker, etc., determined to tame them. He forgot, however, a small hole in the crown of his hat, and in an unmentionable part of his pants, of which, after the regulation amount of smoking, about 20 vigorous bees in the hat, and as many in the pantaloons, reminded him most forcibly. The bee master retreated, still fighting for mastery. The battle lasted all day. The master was forced to run over into another county. Every hand on the place was routed; the horses and cattle were stampeded; dogs and cats were driven into the brush; the poultry came next, and bolted for the woods; sitting hens and ducks were driven from their nests, and night at last put an end to the conflict. The bee master did not attend the Bee Convention last week, but there is no need to ask why.

* * *

Good Blood Tells.—The Cincinnati *Grange Bulletin*, very aptly puts it thus:

It is needless to recommend to the bee-keeper who gets the best blood in his barn, to also keep good blood in his hives. Blood pays in all cases, and if our farm would flow with "milk and honey," we must adopt the best breeds and best appliances. The prime object in making a bee farm, is to provide pasturage at a time when the bees do not get honey from what is termed, "natural sources." The first thing our bees want in spring is pollen, and we can imagine with what admiration the first pollen-ladened bee is greeted as it enters the hive.

As we have so often asserted, "best bees" and "best pasturage" are the "winning cards." We are glad to see our position on them so generally endorsed.

* * *

Bee Pasturage.—*Our Home and Science Gossip* records itself as follows:

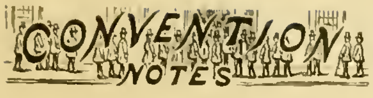
Among our valuable bee-exchanges, we include the AMERICAN BEE JOURNAL, Chicago, Ill., an eight-page weekly, which is the largest paper we receive devoted exclusively to bee-culture. In the number for Sept. 28, Dr. Tinker speaks very highly of what he terms the "golden honey plant," and claims for it the prestige of eclipsing all the August and September honey-producing plants, while Mr. T. G. Newman, the editor of this valuable paper, says "every bee-keeper should lend encouragement to the developing of new honey plants, as sometimes the more popular varieties are not suited to all climates and soils." We deem this very sensible advice, and hope all our bee-keeping readers will take pains to heed it.

* * *

☞ The Marshall County Bee-Keepers' Association will meet at Marshalltown, Iowa, Saturday, Nov. 5, 1881, at 1 p. m., in Judge Bradley's rooms, Woodberry Block. Subject for discussion, Wintering.

J. W. SANDERS.

Le Grand, Iowa, Oct. 25, 1881.



Read in the National Convention.

The Different Races of Honey Bees, and their Geographical Distribution.

DR. J. P. H. BROWN.

The bee bears the same relation to the other orders of insects, that the Caucasian race bears to the other races of mankind; it is the highest type of insectian form and development. Endowed with instinct, and "a kind of reason, differing, perhaps, only in degree from that of man, these insects out-rank all other articulates." In the fossiliferous history of our earth, the bee does not date far back, but is the last to appear upon the earth's surface.

This insect has been placed by ,entomologists in the order Hymenoptera family Apiariæ of Latreille, genus apis. The genus is subdivided into various species; probably not more than seven or eight. Some of the old writers have enumerated many species under the generic name "apis," regardless whether they belonged to the social or solitary group.

The species "apis melifica," which is our domestic honey bee, is the one most generally known, and is the one to which I shall confine myself in this paper. The black or German bee, the Italian bee, the Cyprian bee, the Egyptian bee, and the Holy Land or Syrian bee, are often referred to as distinct species, but neither of these races or varieties have sufficient physical characteristics to entitle them to be so classed. The catagory of characteristics upon which species are based, embraces not only marked differences in the proportion of the parts and in the absolute size of the whole animal, but it also implies a difference in habit, and a capability of indefinitely perpetuating the characteristics of the animal by sexual reproduction.

Hybridity among species very rarely occurs; varieties, on the other hand, very easily cross, and such crosses are prolific, while true hybrids are not usually so. I use the term hybrid here in its true signification, and not in the sense in which it is commonly applied by bee-keepers.

Whether the different varieties of the honey bee originated by the touch of the Divine hand from a common centre, or whether they emerged into existence, according to the theory of evolution, with all their distinctive peculiarities, at the localities where found, I will not discuss, but will simply observe, that from all the light we have before us, both sacred and profane history, bearing upon the nativity of our domestic bee, we are forced to locate it in the country now known as Syria. How far the type of this bee, inhabiting this locality, has been changed by the agencies brought to bear upon it through the thousands of years of its existence, we have no positive knowledge; but we do know that when a race or variety of animals are taken from one locality into another where there is a difference in food, and different climatic agencies brought to bear upon them, that they will gradually undergo some change in their physical characteristics. As illustrations of this fact, Mr. Alfred R. Wallace, author of "Theory of Natural Selection," has observed that butterflies, of the family "Papilion idæ," inhabiting Sumatra, Java and Borneo, are almost always smaller than the closely allied species of Celebes and the Moluccas; the species or varieties of the small Island of Amboyna, are larger than the same species or closely allied forms inhabiting the surrounding islands; the species found in Celebes possess a peculiar form of wing, quite distinct from that of the same or closely allied species of adjacent islands; and numerous species which have tailed wings in India and the western islands of the Archipelago, gradually lose the tail as we proceed eastward to New Guinea and the Pacific.

In Angora, not only goats, but shepherd dogs and cats have fine fleecy hair; the wool of sheep changes its character in the West Indies in 3 generations. M. Costa states that young oysters, taken from the coast of England and placed in the Mediterranean, at once altered their manner of growth, and formed prominent diverging rays, like those on the shells of the proper Mediterranean oyster."

We find the same law to hold good in the vegetable world. Apple trees of winter varieties taken from Northern nurseries and transplanted in the Southern States, mature their fruit early in the fall with the loss of its keeping qualities. Improved varieties of tomatoes that grow to perfection at the north, when planted in the extreme south will degenerate in a few seasons into small red balls. Some 10 years ago I planted for the first time the Trinidad sweet potato, then recently imported. Then it was of globular shape, white, and rather coarse grained. The same potato now, on my grounds, under careful culture, has entirely changed its original shape and qualities. It has become oblong in shape, of yellowish color, fine grained with an abundance of saccharine matter.

In commenting upon these alterations of type in vegetables and animals, the author previously quoted observes that "many of these curious modifications may, in time, be due to other causes than climate only, but they serve to show how powerfully and mysteriously local conditions affect the form and structure of both plants and animals, and they render it probable that changes of constitution are also continually produced, although we have, in the majority of cases, no means of detecting them."

Herr Vogel, a distinguished scientific apiarist of Prussia, in a paper upon the "Mixed Breeds of Bees," refers to varieties as follows: "If the bees of any particular district are distinguished by a marked propensity for swarming, or by any other special characteristics, we are warranted in designating them as a variety. Thus in my estimation, the heath bees of Luneberg, or those of lower Austria, etc., are simply new varieties of our well known black bee. The peculiar constitutional properties which characterize varieties are rooted in the physical or spiritual nature of the insect, and elicited by the kind or quality of the pasturage, by particular modes of management, by diversity of climate, or some other dominating peculiarity of the district. Accordingly, these constitutional properties disappear, or are lost by lapse of time, by removal to a different locality, and thus subjecting the insect to other climatic influences, and other conditions of management or pasturage."

Reasoning a priori, we are forced to the conclusion that the Syrian, Cyprian, Egyptian, Italian and black bees are simply varieties of the species "apis melifica," and are of common origin. We are also confirmed in this conviction by their comparative characteristics. In cultivating any of these breeds of bees, there is a continual, though slight disposition to sport from a precise standard of physical and psychical characteristics to an assumption of some of the peculiarities of some other breed. This seems to be a rule attending the breeding of all cattle, horses, sheep, swine and fancy breeds of poultry, that lack that fixedness and individuality of character sufficient to stamp such breed as a distinct species. The black bee and the Cyprian, though possessing probably more type of character than the other varieties, often sport from an exact standard, both in the queen and worker progeny. Black queens are often found as yellow as some imported Italians, and in the same apiary of blacks, the workers of one colony may be larger in size, and of a less black color than the rest. In fact, I have often seen black bees when their abdomen was distended with honey, that showed 3 bands quite as distinctly as some dark Italians.

Cyprian queens come nearer duplicating themselves in appearance than any other breed, but they at times, sport. The workers generally have the yellow abdominal bands bright and distinct, with a delicate fringe of yellow hair bordering the posterior segments of the abdomen; but sometimes this hair is whitish, and the fringe heavy, with nothing to distinguish them from the Syrians and Egyptians. On the back between the articulations of the wings of the Cyprians, there is generally a tuft of bright golden yellowish hair, covering the honey shield, which is also yellow. These marks are claimed to be a distinguishing trait in their case, but if you will carefully examine your bright Italians and Syrians, you will find many bees with the same mark. I find many Syrian queens marked like the Cyprians, but then at times, we find them as dark as black queens. The same observation applies to the Egyptian queens. Italian queens, as we receive them from Italy, vary very much in appearance. While some few are bright and yellow, the majority will produce three-banded workers. I have seen, and received myself, direct from that country, some that would produce some workers that could not be distinguished from blacks.

When the mental peculiarities of these breeds are compared, they point as unmistakably to the common origin, as do the physical characteristics.

The Italians strongly adhere to their combs; the Cyprians also possess the same propensity, only not in so marked a degree. The blacks, when alarmed, will scamper and desert their brood; the Syrians show the same trait, but not to so great an extent. The Egyptian bees have a great propensity to build queen cells and swarm; the same can be said of the Cyprians and Syrians, and now and then we find the same disposition among Italians. I have had colonies of blacks to show the same propensity.

The mass of bee-keepers are fully acquainted with the blacks and Italians, but are unfamiliar with the Cyprians and Syrians. There seems to be great diversity of opinion in regard to the merits of these two last named varieties, which have been recently introduced. If they should add nothing to increase the honey production of our country, I regard their introduction into America as a means of throwing more light upon the natural history of the honey bee, and to those two enthusiastic bee-keepers, Messrs. D. A. Jones and Frank Benton, who were the first to import these bees direct, the scientific apiarists owe a debt of gratitude that can never be paid.

Aside from the aid they have been to scientific investigation, they have qualities, which, in my opinion, can be made available in an increased production of honey. I have found the Cyprian queens wonderfully prolific, and the workers very industrious. True, they have some ugly traits of character—they are most excellent fighters when provoked, but, with a proper application of smoke and care and gentleness in opening the hive, avoiding all sudden jars, I can work among them as easily as with the Italians. During the past season I have found that in a few generations they lose, to a very great degree, their fiery temperament, and become more like the Italians in disposition.

Of late years much attention has been paid to secure bees with long tongues, and the microscope has been brought into requisition to determine their length. The major portion of all such experiments signally fail to give satisfactorily results, from the fact that the observations are either made upon dead muscle, or when the muscles of the tongue are in a passive condition. The length may thus be correctly determined, but it fails to give the degree of working capacity of this organ when in a "state of action." Therefore, only such experiments that seek to measure the distance the tongue of the living bee can pass down the corolla of the flower, will prove of any advantage to bee-keepers.

In order to secure some definite results in this matter, I have constructed a small instrument which I call (for the want of a better name) a linguameter. This instrument contains a cup to hold diluted honey, a float, and a dial of 32ds of an inch. The bee's tongue passes down to the food through meshes of ⅛ of an inch, formed by very fine wire. As the honey in the cup is taken up, the float descends, and marks the distance on the dial. It is not claimed for this instrument to give the actual length of the tongue, only its reaching capacity through a given sized aperture. Six colonies each of black bees, imported Italians, home-bred Italians and Cyprians were tested with this instrument with the following result:

The blacks aggregated 42-32 inches; two colonies reached 6½-32 each; three, 7-32 each, and one went 8-32. The imported Italians aggregated 45-32; three colonies went 7-32 each, and three 8-32 each. My home-bred Italians summed 48 32; one colony reached 7-32; three colonies 8-32 each, and two went 8½-32 each. The Cyprians aggregated 49 32; four reached 8-32 each, and two went 8½-32 each. One colony of Syrians (queen from Mr. Jones) was tested with a result of 8-32.

While these experiments do not show as great a difference in the reaching capacity of the tongues of these varieties of bees as many persons might suppose, they demonstrate the fact, other conditions being the same, that the Cyprians and Italians have the ability to collect the most honey. During the past season, with me, the Cyprians have been ahead as honey gatherers, the Italians next.

In the geographical distribution of the yellow varieties of apis melifica, we find them all to be confined to certain districts lying between the 24th and 46th degrees of north latitude of the eastern hemisphere. If we look for these districts or sections of country upon the map, we will find them to be generally isolated, and hemmed in by water, desert or mountains, which would make communication with outside countries dangerous and dificult for the migration of insects. We also find that these countries or districts do not generally abound in a great abundance of honey producing plants, that in some seasons honey is scarce, and great exertion is required in order to get a subsistence. We also further find, as the country becomes more expansive, more easy of access, with a greater honey-producing flora, that the yellow bee gradually becomes emerged into the black bee, and thus we find this variety common in every portion of Europe, excepting a very small part of Switzerland, the major portion of Italy, and the whole of Greece.

Egypt, no doubt, was one of the first countries after Palestine that was populated by both man and the honey bee. Commercial relations were early established between these two countries. In the book of Genesis, we are told that Jacob sent his sons down into Egypt to buy corn, and ordered them to take along a little honey. As there was a trade in honey, it is safe to infer that there was a knowledge of the insect that gathered the honey. In this circumscribed country, bounded to within some 80 miles on the east by the Red Sea, on the south by the Nubian desert, on the west by Libyan desert, and on the north by the Mediterranean Sea, the Palestine bee was modified in characteristics by the different pasturage and influences brought to bear upon it.

We are told by ancient history, that the honey bee was first carried from Egypt into Greece by Cadmus. Here, attention was paid to its culture; the learned scientists of those days spent years in studying its economy, and volumes were written describing its natural history. Honey and wax became a large article of traffic. Here, climatic agencies and other influences brought to bear upon it through long ages, changed its Egyptian peculiarities.

This modified bee was carried by the Romans into Italy, and in the most isolated districts of that country maintained, with possibly some modification of type, its characteristics. The best marked Italians are found in the northern provencies. The yellow bees, most likely of Egyptian origin, are found in the northern part of Africa, in those countries bordering the Mediterranean, and in Nubia.

Cyprians, beyond doubt, are descendants of the Syrians, modified and changed by Isolation on the Island of Cyprus, which is located in the eastern portion of the Mediterranean, some 80 miles from Palestine.

The black or German bee has spread with European emigration into nearly every portion of the world. It was introduced, it is believed, into Pennsylvania from Germany about the year 1627, and was transported to South America in 1845. It can now be found in South Africa, West Indies, Sandwich Islands, New Zealand and Australia.

As the black bee is so widely scattered, placed under so many climatic influences, and subjected to such a diversity of forage, it would be most desirable to secure specimens from all the extreme parts for comparison. Such comparison and examination might throw further light upon the mysterious process of modification of characteristics; for with all our study of the nativity and history of the honey bee, there will always be left something still for future study.

In conclusion, I will observe that in my judgment, if the ideal bee "apis Americana" is ever materialized, it can only be accomplished by a rigid system of eclectic breeding of the varieties of apis melifica now at our command. To make such breeding a success, we must have a standard of attainment to govern it. Without such standard, the breeder would be no better than a blind man groping his way in the dark. Science, intelligence, good sense, order, system, and never failing industry must play prime factors. The breeding stock, both male and female, must be selected with the best of judgment; the queen cells must be developed under the very best possible conditions, not in a little 5x6 inch nuclei with a handful of bees, but in colonies with not less than several quarts of bees of the right age to do such work. Every under-sized and defective cell should be rejected.

The bee-keeper who seeks to grasp this ideal bee by his own culture, must take no stock in the absurd doctrine of the "survival of the fittest." Your improved breeds of horses, your short-horned cattle, your fine breeds of sheep and hogs, your fancy breeds of poultry, were never brought about by the "survival of the fittest," and they allowed to "paddle their own canoe." What has been done by stock breeders has been accomplished by a most careful system of selection and management, backed by untiring industry and perseverance.

* * *

☞ The Michigan State Bee-Keepers' Association, will convene at Battle Creek, on Thursday, Dec. 8, 1881. We have reason to expect one of the largest and most interesting meetings we have ever held. Let all arrange to be present. All District Associations should send delegates. Each person should come with their best experience in their hands, ready to hand it over to the others of the fraternity. Commutation rates are expected on railroads. A. J. COOK, *Pres.*
T. F. BINGHAM, *Sec.*

* * *

☞ A meeting will be held at Winterset, Iowa, on Thursday, Nov. 3, 1881, to organize a District Convention. All the apiarists of the vicinity, as well as from other States, are cordially iinvited. A. J. ADKISON,

Northwestern District Convention.

The Northwestern District Bee-Keepers' met in Convention at the BEE JOURNAL office, in Chicago, on Tuesday, Oct. 25, at 2 o'clock p. m., Dr. C. C. Miller, President, in the chair.

The minutes of the last session were read and approved.

The Treasurer's report was submitted and accepted.

New members were enrolled and annual dues paid.

Election of officers being in order, Mr. Ira G. Bull and Dr. Haskin were appointed tellers. Dr. C. C. Miller, receiving a majority of all the votes cast, was declared duly elected.

F. W. Chapman was elected Vice President.

C. C. Coffinberry was re-elected Secretary, and T. G. Newman was re-elected Treasurer.

The Executive Committee were instructed to call the next annual meeting of the Society to take place on Wednesday and Thursday, during the last week of the Exposition.

T. G. Newman offered the following resolution, which was adopted unanimously:

Resolved, That the North American Bee-Keepers' Society be invited to meet with the Northwestern District Society in annual consolidated session at Chicago, during the Exposition, in the fall of 1883.

Best Race of Bees.

Mr. F. W. Chapman has Cyprian bees, but cannot speak favorably of them as better honey gatherers than the Italians. They are not so desirable in point of disposition, but they may develop some superior traits. Has not tried the Syrian bees.

Mr. George Thompson has found the Cyprian bees a little more irritable than the Italian bees; he thinks they are earlier and later breeders, and hence thinks they are a desirable acquisition, if for no other purpose. He thinks they may be crossed with Italians to some advantage.

Mr. H. W. Funk finds Syrians more nervous and irritable than the Italians, but thinks they are not more liable to sting, if handled with care and nerve.

Mr. T. G. Newman: the Cyprians and Syrians have been in the BEE JOURNAL apiary less than one full season, which is not sufficient time to test them for points of superiority or inferiority.

Queen Rearing.

Mr. L. C. Wemple inquired if, to rear queens, a division of the colony would not produce good ones.

Decided in the affirmative, if the young bees were left in the queenless hive.

Question: Will queen cells left in the hive after a swarm has emerged, produce better queens than those reared in a hive made queenless? Decided there was no preference.

Mr. C. W. McKown stated he had lost about 50 per cent. of the young queens he had reared this season. Why is it?

President Miller thinks much loss is occasioned by a sameness in hives in position and appearance, and by placing them in rows at regular intervals. He reverses the entrances of his hives containing virgin queens, and with good effect.

Mr. L. H. Scudder said he had heard the loss of young queens attributed to the birds. His nuclei are placed in the orchard, and he has never had better success with queen-rearing and mating than this season, and the birds have never been more numerous in the orchard.

Mr. Funk but seldom loses queens from his fertilizing nuclei; he has them sitting around wherever most convenient.

Mr. Thompson lost about 65 out of a hundred young queens early in the season, when birds were most numerous; but later, when the birds were not so plenty, he has had comparatively good success.

Several persons mentioned having seen bees fighting birds.

Question: Where the best queens are desired, is it preferable to give the queen-rearing colony eggs or freshly-hatched larvæ?

Answered by several: Eggs are preferable. Remove the queen, eggs and young larvæ from a strong colony, then select two or three combs of freshly deposited eggs from the colony you wish to rear queens from, and place in the centre of the queenless colony. Retain the first completed cells, and destroy the others.

President Miller has reared some of the best queens in this manner, and some of the very poorest he ever saw.

A communication was read from J. Messimore, Millwood, Ind., entitled

The Dzierzon Drone Theory.

I am sorry that I cannot attend the Chicago Convention this session. Had it been a month earlier I could have attended, but now the time approaches when bees must be prepared for winter, and as I have not made much preparation in that direction as yet, I must be getting them ready. I anticipated being with you, but circumstances will prevent it. I intended, if I could have been present at the Convention, to give the Dzierzon theory concerning the drone progeny of pure, but mismated queens, a little probing, as I see that many apiarists are beginning to doubt the truthfulness of that theory. When I first commenced the study of bee-ology I accepted the theory, but have, for some time, had serious doubts about it; but not having the means at hand, I have never experimented on it. One thing, however, I have observed, which led me to doubt the theory: I have had queens whose workers showed no signs of impurity whatever, and whose drone progeny were so uniform and similar that you could scarcely tell one from another. Daughters of such queens I have had mate with black drones, and, as a consequence, their drone progeny were just as dissimilar as their workers, not only in color but also in size. Now, how can that be accounted for if the Dzierzon theory be true? This led me first to doubt the correctness of the theory. Have we no apiarists in America capable of testing this matter, with the proper means at hand? Must we forever depend on men of other nations to demonstrate this matter to a certainty?

Millwood, Ind.

How Increase--Natural or Artificial?

Mr. Thompson thinks the practice of natural swarming should be consigned to the shades of the past, with the discarded box hives, 10 and 20 pound boxes, and brimstone fumes.

Mr. Funk suggested that at times the trouble was not so much how to increase, as to the best methods of preventing it.

President Miller is opinion that all depends upon whether increase is desired.

Mr. C. W. McKown prevents swarming by clipping the wings of queens.

Mr. A. J. Hatfield has found that clipping the wing of a queen has a tendency to break up and demoralize the swarm, they frequently entering other hives besides their own, and creating great confusion among other colonies.

Mr. T. S. Bull much prefers natural swarming, and but seldom loses one; this season, with more than 40 natural swarms, he has lost but one.

Mr. Hatfield has found that his colonies which stood in the sun, without any shade whatever, swarmed most persistently.

President Miller has had them swarm quite as frequently where the hive was entirely shaded, as those standing in the sun.

The majority of opinion was that with plenty of shade over and room in the hive, the tendency to swarming was much lessened.

Adjourned till 7 p. m.

EVENING SESSION.

Bee and Honey Shows.

The Secretary read the following communication from the State Vice President of the North American Bee-Keepers' Society:

Peoria, Ill., Oct. 22, 1881.

To Northwestern District Convention:

During the late State Fair, held at Peoria, Ill., we were conversing with members of the Board of Agriculture with reference to the meager premiums offered by that body for bee-culture. We were told that it was the apiarists' fault, that they had not taken any interest in the matter. We were requested to issue a call for a Convention to assemble at Springfield, at the time of the meeting of the State Board of Agriculture, to take action in the matter. Bee-keepers of Illinois, is it best to issue this call? We would like to see a big show of everything pertaining to a first-class apiary at the fair of 1882, and we can have it only by working for it. Those of you who deal in supplies are the ones who would be benefitted more or less by this display, and are you willing to assist? Let us hear from the bee-keepers of Illinois on this question, whether it is best to call a meeting, or try to work up the desired result by writing.

LUCINDA HARRISON.
State Vice President.

On motion of C. C. Coffinberry, Mrs. L. Harrison, of Peoria, Ill., was made an honorary member of the Society.

The following resolution was offered by Mr. Coffinberry:

Resolved, That the Northwestern Bee-Keepers' Society indorse the action of the National Convention in encouraging bee and honey exhibits at State and Local Fairs and Exhibitions, and that Mrs. Harrison, Vice President for Illinois, and the Committee appointed by the National Society, have our hearty co-operation and encouragement in their labors in this behalf.

Mr. Coffinberry hoped the Society would take most positive and unmistakable action on the communication from Mrs. Harrison; the question of making exhibits at State, county and local fairs was one of the gravest importance to those engaged in bee-culture. It is not enough to form societies and hold conventions for the purpose of instructing bee-keepers as to the best methods of preparing bees for winter, or of producing honey for market, or as to the best race of bees; we have but half done our work when we have learned all the improvements our fellow-apiarist employs, or taught him all we know. There is a vast public which needs educating as to the value of honey for dietetic and medicinal consumption. Their prejudices must be removed, and a desire and taste created for honey, as now exists for sugars and syrups. Bee papers cannot accomplish this work, because they circulate wholly among that class of people who can already appreciate the value of honey; it cannot be done through the agricultural press, because nearly all farmers are already consumers, and utilize its economic properties; we cannot educate the masses through the metropolitan and general press, because they collate their reading matter with a view to interesting the general reader.

The speaker can see no plan for carrying on this educational work so feasible, as to take advantage of the large popular gatherings—and especially fairs and expositions—where pure honey can be exhibited in large quantities in its most attractive forms. Not only should the honey be exhibited and sold, but our beautiful and gentle Italians should be manipulated on the grounds, to attract the people through their instinctive curiosity; now and then a comb might be extracted and samples exhibited through the crowd; this, too, is a good opportunity to explain the process of granulation in honey, and how to liquefy it. The primary lesson in the consumption of honey can now be instilled on the public mind by having a quantity on sale in neat, attractive packages, and of proper sizes for family use.

By offering liberal premiums and encouragement for apicultural displays, the agricultural boards and managers are not benefiting honey producers alone. If it be their duty to assist in developing the natural and possible resources of our country, they certainly by every means should encourage these exhibits. Our present product of millions of pounds can be easily developed into billions, and many millions of dollars be added to the productive wealth of the country. Certainly, at our State and county fairs, the apiarian department should be given a prominence at least equal to that of the horse, cow and sheep, and second to none.

Nor need bee-keepers fear that education will lead to over-production. We have, and there is springing up, a foreign demand for American honey that will consume, at remunerative prices, all the surplus we may have to spare, even though it be an hundred fold. Over-production, over-stocking and competition are fast losing their terrors for the reflecting mind, and stimulated consumption, generous rivalry, and co-operative effort are fast usurping their place.

Mr. T. G. Newman said that he indorsed most fully the remarks of the last speaker, and would give a few examples of the educating power of bee and honey shows.

Some two or three years ago Mr. Scudder, one of the members present, took several thousand pounds of honey in the comb to Canada to sell, and found it almost impossible to dispose of it. Since then, magnificent displays have been made at the fairs, and every pound at those displays was sold on the ground at good prices. Now Canada cannot supply her home demand, and this year has sent to the United States for thousands of pounds more. What has made the change? Consumers have been educated—have tasted of honey and found it good, as Solomon said, and now are everywhere demanding more.

At the St. Joseph, Mo., Exposition the honey and bee display attracted more attention than everything else on the ground, excepting the award of the prize of $25 for the best looking colored baby!

In 1878, 180 tons of comb honey were sent to England; and at the Royal Agricultural Show it was arranged in a magnificent pyramid with a large sign, "American Honey," over it, and the "stars and stripes" hanging in graceful folds around it. This not only took the first prize, but created such a *furore* that the Prince and Princess of Wales and the Royal family came to the apiarian department in carriages to see it; alighting, they came in to examine it, and sought information regarding its production on so large a scale and in such tempting packages. A dozen crates of it were ordered for the Royal table, and, from the Queen to the peasant, all caught the enthusiasm. I was amused at some of the effects of this display that I noticed in London. While walking down several of the busy streets I noticed here and there a crowd had gathered and blocked up the sidewalk. Coming closer, I found the cause of the excitement; show windows had been filled with comb honey, and a card announced that it was American honey and for sale at 2s. 6d. per lb. (60 cents). There they stood and gazed upon it, their very eyes seemed riveted to the spot—but no word was heard—

"It seemed as though they saw a miracle,
And for very rapture ne'er would speak again,"

while their eyes feasted on the magnificent display of concentrated sweetness from

"The land of the free
And home of the brave!"

Not until sturdy policemen came to the relief of pedestrians could the crowd be dispersed. The order to "Move on; move on!" was obeyed, but only to let another crowd form a few moments afterward. I witnessed this scene over and over again.

This "word-picture" gives us a striking lesson—to exhibit and display our honey, and thus educate the masses who by thousands carry home the small quantity to delight their families, and give them health and strength both of body and mind, by the use of this God-given sweet! How much better to do this than to feed our sweet babes and tender offspring upon vile glucose in the form of syrups, candies and condiments, and thus send them to an early grave or sow disease in their little systems, by permitting them to use the accursed stuff made from old clothes, boot-heels and dirt, which greedy and conscienceless men have made solely for the purposes of adulteration!

Yes; let us use every means to introduce honey to our neighbors—to tempt them with its beauty and beguile them with its sweetness. Let us take possession of every State, County and Local Fair, in the name of humanity, and educate the people with such magnificent exhibits of honey that they never can forget it. Distribute to the admiring crowd the evidence that honey is *good*, not only for FOOD—giving warmth to the system, vigor to the vital functions, strength to the body and force to the mind—but that it is good for MEDICINE, healing many forms of disease and prolonging life.

Mr. Newman remarked that he had spent thousands of dollars to help open up the markets of the Old World to honey, and notwithstanding the fact that he had been roundly abused by short-sighted men for so doing, who feared that it would be an injury rather than a benefit, yet he was glad to see that the beneficial results were being noticed. Europe is holding out her hands to us and demanding tons of honey, when we have not a pound to spare—our home markets taking all we can produce with our limited number of bees; but sweetness enough is going to waste to produce billions of tons, and the speaker said that the time was coming when a revenue of millions of dollars would be received annually from foreign lands for honey that was now not gathered. He knew that intelligence and energy, coupled with improved implements and the "coming bee," would overcome all obstacles and contribute a supply of superior honey to all the markets of the world.

Mr. L. H. Scudder remarked that the masses of people needed education in the production and consumption of honey. Three years ago he, with a neighbor, went to Canada to dispose of their crop, but no one understood the value or merits of honey for home consumption; their only sales of extracted honey were in drug stores in very small lots for medicinal purposes. Finally, after two months spent in Canada in a vain effort to sell this car load of honey, they returned to the United States, and disposed of it in job lots.

The resolution was then unanimously adopted.

Increase of Bees.

Mr. Funk says it is best to increase if the swarming fever gets full sway; but, otherwise, run colonies as strong as possible.

Mr. Scudder thinks a moderate increase is most practicable, then double up when the honey harvest has ended.

President Miller adopts the plan as practiced by Mr. Doolittle to prevent the increase of colonies; by caging the queen when the swarm comes out, five days after destroy queen cells, return the queen, and generally they work without interruption.

Use of Separators.

Mr. McKown asked if any one had used sections filled with foundation, and without separators?

Mr. Scudder said his bees would not build straight combs without separators, even with full sheets of foundation.

President Miller would like to abandon the use of separators; but has never been able to pack his crates with sections built without.

Mr. Funk has not been able to get straight combs without separators.

Mr. Newman does not think straight combs can be built without separators, to the extent of meeting the *full* demands of the market.

President Miller has used wires stretched across instead of tin, but found the wires would not only sag, but were imbedded in the honey.

Mr. Palmerston has used perforated separators, which answered very nicely; but he does not know that they were any better than the full surface of tin.

Mr. Newman thinks unless they are better than the full surface of tin, they will prove impracticable, as they cost at least 50 per cent. more.

President Miller finds that in the fall bees fill up the sections better with separators nearly the full width of the box.

Mr. Scudder has found a great advantage in the use of separators in removing sections as fast as finished; he can remove a section at any time without disturbing the remainder.

Side and Top-Storing.

President Miller thinks there is an advantage in side-storing, inasmuch as the bees will begin storing at the side first in the spring. He does it in this way: When the honey season commences, he uses about 8 Langstroth frames, which gives him an extra space at one side; he then raises a brood frame from the brood chamber to the super, putting down a division board to take the place made vacant by the removal of the frame; he now places two cases of sections in the super, one on each side of the brood frame; in four days another case with sections is placed each side of and next to the frame containing brood, and this course is pursued till the super is filled with sections, and the brood frame returned to the brood-chamber. He has found, however, that sometimes they bulge the sections a little before the super is entirely completed.

It was suggested by a member that perforated separators would obviate this trouble.

President Miller explained that he utilizes the space at the side of the 10-frame Langstroth hive by putting down a division board, and can use it in the spring for stimulative feeding, or fall for winter feeding. He leaves the space unoccupied in summer, and finds it convenient as a pocket to set frames in when looking through the brood chamber. He has had some trouble with the queens going into the sections and depositing eggs.

Adjourned till 9 a. m.

WEDNESDAY—MORNING SESSION.

Convention opened at 9 o'clock, President Miller in the chair.

Pasturage for Bees--Over-Stocking.

President Miller stated that although many might not feel an interest in this subject, he thought all would sooner or later be compelled to give it attention.

Mr. Scudder being called upon, stated he had kept over 200 colonies in one location. Some seasons he thought all had done as well as a lesser number would; in other seasons he thought the locality was over-stocked.

Mr. Bull has kept over 200 colonies in one location. He thinks, in a good season, it is impossible to over-stock a good location.

Mr. Chapman thinks with Mr. Bull. He has kept 225 colonies in one locality, and does not think he was over-stocked. He will only run about 100 in one locality hereafter, because he cares for no more than he can take care of alone.

Mr. Coffinberry called for information: How many colonies can subsist in a good locality, with a good honey flow?

Mr. Thompson thinks in his location 1,000 colonies would not have over-stocked the past season.

President Miller has felt at times that his location has been over-stocked.

Mr. Thompson thinks bee-keepers will, sooner or later, plant for bees, as for cattle and sheep. He spoke highly of sweet clover.

Mr. Bull has no difficulty in eradicating sweet clover from his orchard. He thinks it no more difficult to destroy than ordinary weeds.

Mr. Wemple inquired if it would pay to transplant sweet clover?

Several stated it would, if taken up before the roots have penetrated.

Mr. Lucas has planted ten acres. He saw bees storing honey in boxes from it two weeks ago, after everything else had failed.

Dr. Haskin has had no trouble in exterminating sweet clover when he has not wanted it to remain.

Mr. Newman thinks this a most important topic. If it will pay to gather honey from white clover and basswood, it will certainly pay to keep sweet clover for them.

J. Lee Anderson has had trouble in his cornfield from sweet clover. He has been trying to exterminate it for two years, but as yet has not succeeded.

Mr. Thompson suggested that if mowed in June, it would bloom much later, and more profusely.

Mr. Scudder called attention to the Simpson honey plant (figwort). It is good for honey, but is difficult to develop to any extent. It is, however, a splendid honey plant, when properly developed.

The Secretary read a paper from Rev. A. Salisbury, Camargo, Ill., entitled

Can it be Accomplished?

There should be a uniform market price for graded honey of the same quality, and all the proceeds of the apiary, corresponding in value with all other lucrative avocations, in proportion to the amount of capital invested and labor expended to make it a success. However scientific and attractive any business may be of itself, if it does not remunerate capital and labor corresponding with other professions and pursuits, it loses its position of honor in the eyes of all the world, and at once becomes enfeebled, and time is the only arbitrator of its sad destiny. This has been accomplished in other pursuits—for example: The manufacture of gum boots and shoes. The several producing establishments of the country agree, and bind themselves in a penal bond of $20,000, to produce the same quality of goods, and sell these goods at corresponding prices. The only cutting on prices is done in the hands of the retail merchant.

Can we not learn a lesson here, and pause but for a moment to think of the omnipotence of co-operation. Are those who jointly work in the apiarian business, whether in the person of an editor of a bee paper, or a producer of honey or supplies for the apiary, men and women of inferior ability? The response is in the negative.

Light was never brought out of darkness, or order from chaos, to reign at once in perfection, but by one in whom imperfection never existed. So we may expect our co-operative work, after years of labor only, to bear the semblance of perfection. We cannot expect men and women who keep bees and raise honey for the market, at once to see the importance of a National Society, supported by auxiliary State and County Societies, and the greater composed of delegates from the lesser, with duties not only to express the wishes of the producer, but to carry all statistical information to the highest authority, and clothed with power to cast a vote for the good of the whole. Can it be accomplished?

Mr. Newman addressed the Convention, on the above subject, giving

A Few Thoughts on Marketing Honey.

The Arabs, it is stated, obtained their knowledge of Astronomy while crossing the trackless desert, being compelled to observe very closely the position of the stars to guide them in their journey. Just so should the bee-keeper closely watch the continual and varied changes that occur in the demands of the public concerning the preparation of honey for the market. Instead of settling down to the conclusion that, in reference to marketing honey he knows it all, he should be careful to observe what dealers and consumers demand, and then at once, freely and fully meet the requirements of the trade. In this way only can he become a successful apiarist.

The progressive producer of this God-given sweet is never surprised to find that the methods of preparing honey for the market, which were acceptable one year, are behind the times for the next season.

It should never be forgotten, while marketing honey, that good quality and attractive packages will *command* the highest price, and be in constant demand. These tempt the purchaser, and cause a steady demand.

A producer who is "behind the times," brings his comb honey to market in 4, 6, 8, or 10 lb. boxes, as he did years ago, and wonders why he is offered 4 or 5 cents per pound less for it than his neighbor, who obtained his honey in single sections. But he finds, to his sorrow, that he is not only "behind the times" in producing the honey, but also sadly *behind* in obtaining a market for it, even at a discount of one-quarter of its entire value.

Again, a buyer of honey said in our hearing but a few days ago, that it was *fun* to him to find a man who was not "up to the times" in being posted on the value of his crop. He went down to Water Street and found a nice lot of basswood honey in the hands of a commission merchant who had not taken the trouble to post himself on the value of the honey, and was willing to take an offer some 3 cents per pound less than the *real* market value.

Those who think they cannot afford to take a paper devoted to the interests of honey producers, often sacrifice 50 times its cost in the sale of their crop of honey—and does it not serve them right? Surely it does! But the innocent sufferers are those who find the market price weakened, if not absolutely broken by such reckless and unprogressive persons. Here, let me say to those bee-keepers who object to have their neighbors take the bee papers, least they may "tread on their corns," that they are not only standing in their own light, but are using an argument which comes home to them with *double* force, when they find the unsophisticated ones cutting the prices, by their ignorance of what they could and should learn from the papers devoted to bee-culture.

Extracted honey is gaining ground daily, and is destined to become the staple product, while comb honey, ever delicious and enticing, will hold its own as a fancy article.

Extracted honey should be put up in small packages—jars, cans, pails etc., for retail, and in small kegs for wholesale. It is a sad *blunder* to use barrels holding from 300 to 500 pounds—they are too large to be desirable for the trade, too bulky to be handled with care in transportation, and too dear to be lucrative to the producer, for honey put up in such large barrels is subject to a discount of one cent per pound, because of the difficulty in disposing of it without repacking and dividing into smaller lots.

If a "word to the wise is sufficient," I hope that "the wise will understand," and profit by these brief suggestions of their friend.

Hereupon sprung up a discussion as to the relative value of comb and extracted honey in market.

Mr. Anderson inquired what yield of comb honey is proportionate to a yield of extracted?

Mr. Bull thinks about one-half.

Mr. Niehaus run this season 17 colonies for comb honey, and realized a little over 3,000 lbs.; he also run 8 colonies for extracted, and took about the same number of pounds.

Mr. Thompson can get 300 lbs. of extracted as easily as 100 lbs. of comb honey.

Can one person take care of more bees running for comb honey than he can for extracted?

Mr. Niehaus would rather take care of fifty colonies running for extracted than the same number for comb honey; in fact, he would rather take care of 75 of the former than 50 of the latter.

Adjourned till 1 p. m.

AFTERNOON SESSION.

President appointed Mr. Scudder, Dr. Haskin and Mr. Wemple a committee on exhibits.

Moved and carried, that time for adjournment be fixed at 5½ o'clock.

Mr. Hatfield moved that Mr. Newman be requested to write out his address of yesterday, and publish it in full with the minutes of the Convention. Unanimously adopted.

The first subject being Wintering, a communication was read from T. F. Bingham, Abronia, Mich., entitled

Wintering of Bees.

Enough has been written in the past 20 years to demonstrate that as yet one point in practical apiculture is unsolved—viz., safe wintering. Time out of mind has demonstrated that a good stone cellar, entirely under ground, is the safest and most economical plan yet devised. A plank-lined cellar, theoretically, is not as good, for the assumed reason that the radiation of warmth from the ground is more or less impeded by the plank lining, which is a poor conductor of caloric, and a poor absorbent of heat. Nothing but stone lining can secure all the points requisite for a bee-cellar.

It is of but little moment to practical bee-keepers how much theory is put forth. The fact stands out clearly that bees never wintered safely in cold latitudes. There was and is an unmeasured factor staring us boldly in the face, which we call "risk." It is not probable that we shall ever entirely surmount this obstacle to unlimited honey production. To reduce the risk to a minimum is all that we can reasonably hope. Then, with our ready and accumulating resources, we may hope to compensate for our oft-recurring but uncertain losses.

We are indebted to the Rev. L. L. Langstroth for detailed experiments in chaff and wool-packed hives and mats. Time has demonstrated that such protection is valuable; but as yet no safe winter bee hive has been invented. That field is yet wide open. The bee periodicals have teemed with fine logic and profound reasoning, based on assumed facts and uncertain data, that the causes were so-and-so and such-and-such. But the implements have not yet been invented whereby these causes can be removed or avoided. Practically, we are no better off than one year ago. All we can do is to do the best we can with the well-tried ways, until some ingenious inventor shall kindly donate to the Independent Order of Bee-Keepers a double-draft, double-blast, blow-hot-and-blow-cold Eureka pollen extractor.

Upon a sense of the meeting being called for regarding in and out-wintering, the expression was in favor of cellar-wintering.

Question: When is the best time to put bees away in the cellar for winter?

Mr. Thompson thinks the first snowstorm in December is soon enough, as there is more or less of warm weather in November.

Question: When is best to take them out? Answered by several, when the weather becomes settled in spring.

President Miller has practiced taking them out at the beginning of maple bloom.

Mr. Scudder. It is not a safe rule, as frequently maple blossoms are frozen after blooming.

Questions.

Mr. Newman was designated to answer the following questions:

Is it advisable to use full sheets of thin foundation in the surplus boxes? Yes.

Does the size of the cells that the worker bees are cradled in have any influence on the size of the adult bee? Yes.

Are all the eggs laid by the queen hatched by the worker bees? No.

Question: Does it pay to rear dollar queens? Answered by Mr. Good, that he has made it pay to rear them.

Which is the best way to introduce virgin Italian queens into black colonies?

Mr. Bull answered that after a swarm has emerged, to let the virgin queen run in at the entrance of the hive immediately, she will be received at once. Care must be taken to run her in before the bees are settled into quietude in the hive.

Mr. Palmerston inquired for the best method of preserving surplus combs?

Mr. Bull hangs his combs on a rafter in his shop. The moth eggs freeze and fail to hatch in spring, and he puts them in use before they can be occupied with moths.

President Miller places empty combs in the supers, and puts them away in a cold, vacant room.

Doubling-up in Spring.

Question by the President: Can we get more honey by doubling up in spring?

Mr. Niehaus doubles up as strong as possible in the spring.

Mr. Thompson practices the same course. He slices an onion, putting a piece in each hive the day before doubling, then with the use of a little smoke, there will be but little if any fighting.

Miscellaneous.

Mr. Newman, special committee on statistics, gave the following condensed report of those now present: No. of colonies in the spring, 490; No. of colonies now, 1,148; increase, 136 per cent.; extracted honey, 19,270 lbs.; comb honey, 17,867 lbs.; average per colony, 80 lbs. Several report queen-rearing as having been a specialty with them, thereby lessening the general yield.

To get bees off the sections when removing the cases from the hive: President Miller has found no better way than to brush them, hanging the corner of the case on the front of the hive, and brushing with a turkey feather.

Mr. Thompson thinks smoke will sometimes injure honey with its flavor.

The following resolution was then adopted:

Resolved, That all correspondents for the bee papers are hereby requested to write as a suffix to their signatures the actual number of colonies on the 1st of May, with which to commence the season, to enable readers to compare practice and results.

Report of Committee on Exhibits.

The following report was received and adopted:

The committee on exhibits find the following articles on exhibition:

From T. S. Bull & Son, Valparaiso, Ind., one crate of white clover honey, put up in prize boxes, and packed in one of their crates. It is beautiful, and will command admiration in any market.

From H. Niehaus, Burlington, Wis., one crate white clover honey in prize boxes, one crate fall honey in prize boxes, and one crate white clover honey in 1 pound sections. These specimens are all gilt edge, and should bring fancy prices.

From S. D. Buel, Union City, Mich., a sample shipping crate for 2 pound sections. The distinguishing features are: 1. Four pieces running crosswise of the bottom of the crate, on which to rest the lower corners of the section; 2. An inside groove on each side down which to slip the glass; 3. An in-fitting cover, to prevent the entrance of bees, flies, etc. The crate is very neat in appearance.

From F. W. Chapman, Morrison, Ill., specimen of peet for smoker fuel. This ignites very readily with a match, and furnishes a profusion of smoke.

From Wear L. Drake, Chicago, Ill., a model for brick wintering bee house and summer refrigerator. This is built with double walls of hollow brick, and is frost and heat-proof. The inventor claims, among other things, a uniform temperature during winter and summer and cheapness in construction. L. H. SCUDDER, *Ch'n.*

Mr. Chapman presented the following preamble and resolution, which were adopted unanimously:

Whereas, The Northwestern Bee-Keepers' Society has enjoyed the hospitality and favors of Mr. T. G. Newman; therefore,

Resolved, That this Society tender to Mr. Newman their thanks for such favors, and wish him abundant success in his laudable undertakings.

The Convention adjourned to meet in Chicago on Wednesday, in the last week of the Exposition, 1882.

C. C. MILLER, *Pres't.*
C. C. COFFINBERRY, *Sec'y.*

SELECTIONS FROM OUR LETTER BOX

What's the Matter?—Only 31 colonies of bees reported from this State in the spring, and 2,306 lbs. of honey! I know of one man who has sold about 4,000 lbs. of honey this season in Sampson County, and I can count over 200 colonies that I know of in this township, about 75 of them in American and Langstroth hives, so I think it is safe to say there is at least 1,000 box hives in this county, and judging from what I find in a report from an agricultural paper, there is, perhaps, 50,000 colonies in box hives in the State. The movable frame hives are a new thing here, but many are trying them. NOAH DEATON.
Carthage, N. C., Oct. 22, 1881.

Good Honey Crop.—I got an average of 120 lbs. of comb honey per colony in the spring, and when I get out and sell off my crop, I shall have realized satisfactorily. T. L. VON DORN.
Omaha, Neb., Oct. 24, 1881.

Bees in Good Condition.—I have sowed 2 acres of cleome and melilot, and ¼ acre of spider plant. I want all of the best plants for bee pasturage. My bees are in better condition than ever before in the fall, and the queens are still laying.
R. W. KEENE, M. D.
Versailles, Ky., Oct. 25, 1881.

Honey Producing Plants.—Prof. Beal has kindly identified the plants which were shown at the National Convention by our genial friend the Rev. L. Johnson. The larger one is the Sida (Sida spinosa). It is a mallow and so related to the hollyhock, to the abutilon and to the cotton plant. The smaller plant is knotgrass, goosegrass door-weed (Polygonum aviculare). As will be seen, this is a close relative of buckwheat. Among the other interesting things which I learned from our ingenious friend Della Torre, of Maryland, blue thistle was a valued honey plant of his region. I have some of these plants from him, and they prove to be Viper's Bugloss or blue weed (Echium vulgare). This is not a thistle at all, and illustrates the need of scientific names. It does not even belong to the Composite family, but to the Borage family. It has rough bristles, and resembles thistles somewhat in other respects. Gray says it is a troublesome weed in Virginia, and rare northward. I have set out the plants received from Mr. D. in our apiary grounds. I shall see if its reputation in the south as a honey plant is merited north. Experiments in the direction of better and more constant forage for our bees, promises much that is valuable. A. J. COOK.
Lansing, Mich.

Honey Cake.—In the BEE JOURNAL for Oct. 5, I noticed that Mrs. J. G. A. Wallace presented 2 honey cakes to the Ontario Bee-Keepers' Convention. If that lady would give the receipt for these cakes in the BEE JOURNAL, it would accommodate many readers.
W. S. PIERSON.
Eureka, Mich., Oct. 24, 1881,

Dry Season in Georgia.—I had 3 colonies of bees in the spring, and now have 8; I increased by natural swarming. I have taken about 119 lbs. of comb honey; it has been so dry that the bees have not been able to do anything since July came in. I cannot think of doing without the BEE JOURNAL, and you may count me a life subscriber. It is the best paper I get.
WM. L. GILREATH.
Teloga Spring, Ga., Oct. 11, 1881.

Sweet Clover.—Please let me know through the BEE JOURNAL whether sweet clover will do well on bottom land that overflows once or twice a year, and what honey plants do the best on such land? There are 5,000 to 10,000 acres of such land within reach of one of my apiaries. Will it do to sow sweet clover in winter on thin snow? My bees have averaged about 10 lbs. of comb and extracted honey per colony. I had one colony that gave me 70 lbs. Increase is about 60 per cent. A. J. NORRIS.
Cedar Falls, Iowa, Oct. 22, 1881.

[We do not know whether sweet clover will do well on such land, but it is worthy of a liberal trial. Hydropiper (by many called smartweed, oxeye and heartsease) is adapted to the locality, and gives an abundance of late though splendid honey. It will do to sow sweet clover on the snow, but we prefer it under.—ED.]

Sixty Pounds per Colony.—I was brought up among bees. This season is one of the best I have known. Last winter was very hard on them; most of the bees kept by farmers died. I started in the fall of 1880 with 160 colonies in good condition. I put them in two cellars, about Nov. 15; about one-half in each. One lot was in a house cellar; the lowest temperature was 39°, and the highest 48°. The others in an out stone cellar that did not freeze, but the bees did not winter as well; they run down more in the spring, and lost more in the cellar. I commenced taking them out March 16, and finished April 4. I lost in cellars 14. On May 1st, I had 135 in good condition. Now I have 200 in good condition. I have received about 3,200 lbs. of extracted, mostly white, and 4,000 lbs. of comb honey—an average of 60 lbs. per colony.
D. E. FLOYD.
Ephratah, N. Y., Oct. 24, 1881.

Good Increase.—I put 4 colonies in a cellar last winter, and had but 1 in the spring; they were hybrids. But I can discount most any thing in the way of increasing, for they showed such a vigorous disposition to increase. I did not feel willing to trust them, and divided the bees, brood and honey, till I obtained 4 new colonies. At present they are strong, and full for winter, after taking 100 lbs. comb honey in 1 and 2-lb. sections. I could have had 50 or 100 lbs. of extracted, had I an extractor.
S. J. MCKINNEY.
Burlington, Iowa, Oct. 23, 1881.

Bees in Canada.—Bees have done unusually well in this part of the country. I wintered without loss, and the bees were in good condition. They did not swarm as much as in other seasons, but gathered twice the amount of honey, and the colonies are the best I ever had at this time of the year. The honey, in glass boxes, holding 10 to 12 pounds, sells readily at 15 cts. per pound. P. B. INGLIS.
Castleton, Ont., Oct. 17, 1881.

[Had it been in 1 or 2 lb. sections, it would probably have sold for 20 cents or more per pound.—ED.]

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30. 1881.
N. E. FRANCE, *Sec.*, Platteville, Wis.

Special Notices.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

* * *

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

* * *

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

* * *

☞ Articles for publication must be written on a separate piece of paper from items of business.

* * *

Photographs of prominent Apiarists—Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

* * *

☞ When changing a postoffice address, mention the *old* as well as the new address.

* * *

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

* * *

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

* * *

An Agreeable Dressing for the Hair, that will stop its falling, has been long sought for. Parker's Hair Balsam, distinguished for its purity, fully supplies this want. 44w4

* * *

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

* * *

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

* * *

Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. It will pay to devote a few hours to the BEE JOURNAL.

* * *

Women are Everywhere Using and recommending Parker's Ginger Tonic, because they have learned from experience that it speedily overcomes despondency, indigestion, pain or weakness in the back and kidneys, and other troubles peculiar to the sex.—*Home Journal*. See adv. 44w4

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☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

* * *

Why suffer such unspeakable tortures? Rheumatism has been conquered. Kendall's Spavin Cure is the victor. See advertisement. 44

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☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL, }
Monday, 10 a. m., Oct. 31, 1881. }

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. We quote light comb honey, in single comb boxes, 18@20c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@22c.

AL. H. NEWMAN, 972 W. Madison St.

NEW YORK.

HONEY.—The advices give a middling fair crop of honey. Moderate lots have arrived, but the demand so far has been very slow, and but little improvement can be expected until we have cooler weather.

We quote as follows: White comb, in small boxes, 18@20c; dark, in small boxes, 15@17c. Extracted, white, 10@11c.; dark, 7@9c.

BEESWAX.—Prime quality, 21½@23c.

THORN & CO., 11 and 13 Devoe avenue.

ST. LOUIS.

HONEY.—Steady. Comb 18@20c. strained, and extracted, 9@12½c.—top figures for choice bright in fancy packages. On Tuesday was effected the remarkably large sale of 9,000 lbs. strained and extracted (in bbls.) at 9c.

BEESWAX—Selling lightly at 19@20c.

R. C. GREER & CO., 117 N. Main Street.

SAN FRANCISCO.

HONEY—A slightly improved inquiry has been observed, and the few sales reported show a little more disposition on the part of buyers to pay full prices.

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 9@10c.; dark and candied, 7@8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.

CLEVELAND.

HONEY—There is an active steady demand in our market for one and two pound sections of white honey, all receipts finding ready sale at 21c. for 1 pound, and 20c. for 2 lb. sections, unglassed. Extracted honey continues dull at 12c.

BEESWAX—20@22c.

A. C. KENDEL, 115 Ontario Street.

CINCINNATI.

HONEY—Is in good demand here now.

I quote: Good comb honey, in sections, is worth 18@20c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

BOSTON.

HONEY.—1-pound combs are a desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 21@22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX—Best light 23@25c.—*Philadelphia Merchants' Guide.*

Local Convention Directory.

1881. *Time and Place of Meeting.*

Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.

Dec. 8—Michigan State, at Battle Creek, Mich.
T. F. Bingham, Sec., Abronia, Mich.

1882.
Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.

25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.

April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.

25—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.

May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

* * *

☞ Subscriptions may commence with the first number of any month in the year.

* * *

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

Given's Foundation Press.

The latest improvement in Foundation. Our thin and common Foundation is not surpassed. The only invention to make Foundation in the wired frame. All Presses warranted to give satisfaction. Send for Catalogue and Samples.
2wly **D. S. GIVEN**, Hoopeston, Ill.

Advertisements.

THE AMERICAN BEE JOURNAL is the oldest Bee Paper in America, and has a large circulation in every State, Territory and Province, among farmers, mechanics, professional and business men, and is, therefore, the best advertising medium.

SEEDS FOR
Honey Plants.

I keep at all times a full supply of Seeds for Honey Plants, including
Melilot Clover,
White Clover,
Alsike Clover,
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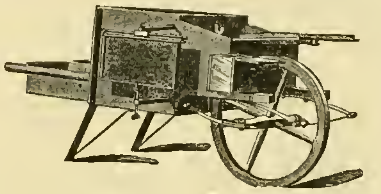

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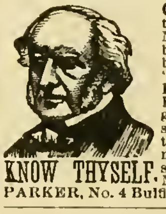

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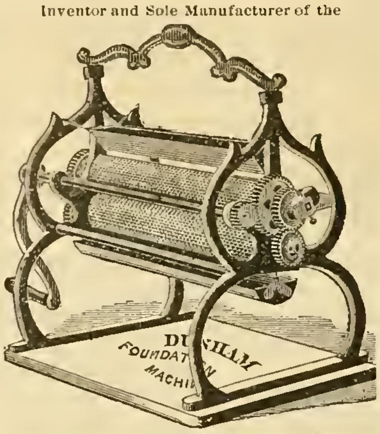

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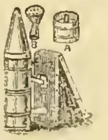

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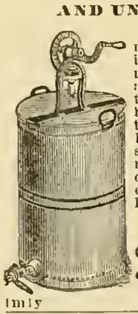

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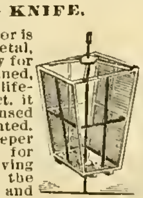

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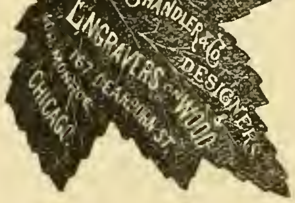

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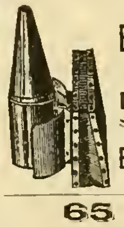

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Sweet Clover Still in Bloom.

Mr. C. H. Dibbern, of Milan, Ill., under date of Nov. 1st, sends us the following unimpeachable testimonial of the late-blooming habits of melilot or sweet clover:

> Enclosed please find a few racemes of melilot clover picked in the open field to-day. This clover was in bloom all through our severe drouth, was then *eaten down by cattle*, but since the rains has come out again, and is now in full bloom. It shows what can be done with melilot. It looks as if it would blossom all winter, if the frosts did not kill it, and bees seem to visit it as eagerly now as in July.

The welcome fragrance of the flowers announced the contents of the letter, even before the envelop was cut open. While this article is being prepared for publication (Nov. 3, 10 a.m.) our first snow storm is prevailing in blinding clouds, and we have before us a modest bouquet of sweet clover blossoms, culled from under its snow winding-sheet.

Mr. E. Lucas, of Kirtland, Ill., stated in the N. W. Dist. Convention, on the 27th ult., that less than 2 weeks previously he saw bees storing honey in their section boxes from sweet clover, while nothing else could be found in bloom. He is so well satisfied of its remunerative ability as a honey producer, that he has seeded in ten acres of it, notwithstanding he is in an excellent locality for spontaneous bee forage.

With Mr. Dibbern's letter before us, we are more than confirmed in the opinion that in most localities, by a judicious system of mowing or grazing, its honey flow can be protracted certainly four months, and, possibly, nearly five months.

The "Coming Bee."

Hon. W. H. Andrews, of McKinney, Texas, writes us under date of Oct. 29, as follows:

> Since my return home from Lexington, Ky., I have overhauled my entire apiary, and find that I now have 275 colonies of Italians in good order.
>
> I got my Langstroth-fund Syrian queen home in good health; it took me five days hard work to get her accepted. I never had so much trouble with a queen before. The colony to which I introduced her was in good condition to take a queen, but they seemed to know that this was a little, waspy, striped-backed concern, not like the royal golden mother they once had.
>
> I have concluded to start a small Syrian apiary, though I am quite sure that the pure Italian (the brightest) is the much-talked of "coming bee," and that all talk is a mere waste of raw material when it points in the direction of an amalgamation of races, as it would take two or three such lives and fortunes as that of Mr. D. A. Jones', directed to and expended upon that one object, and that, too, without one material mistake; besides, it would take a ten years' session of the National Convention to determine what races should be mixed, and what points should be brought out and what repressed; and then the trouble would only be begun, for the means by which these things could surely be accomplished. would require all of a lifetime of trial and study.
>
> I hope that the next man who proposes the "coming bee" as a subject, will tell us what it is to be, and how he expects to obtain it; let us have one idea, just one, in regard to this matter.

We regret being obliged to differ with Judge Andrews regarding the present attainment of the "coming bee." We feel confident that in his careful, discriminating management, even his beautiful "brightest" Italians will reach a point as much in advance of their present excellence, as they have advanced from their first importation. And that they have advanced we can well believe, after reading in the last BEE JOURNAL (page 347) the result of Dr. Brown's comparison between the tongues of American-Italian bees and those bred from imported mothers.

But we learn another point from the Doctor's able address, viz: that the tongues of the Cyprian bees, in a trial of six, aggregated 1-32 of an inch longer than he reached with six of his improved Italians, and they in turn aggregated 3-32 of an inch (one-tenth) longer than the imported Italians. Equally pronounced is the result of Prof. Cook's numerous microscopical measurements of the tongues of the Syrian bees, which he finds to equal those of the Cyprians, and .006 of an inch longer than those of the Italian. Here, then, is "one idea, just one," which must be taken into account in the development of the coming bee. Now, if the Syrians are capable of as great improvement as has taken place in the Italians up to this time, we can count upon a tongue more than one-third of an inch in length, which will be sufficient to reach the nectar in the first bloom of red clover, and to render unnecessary any further efforts to secure *Apis dorsata*. That this almost fabulous length of tongue will be of any real benefit in Texas we cannot assert, but certainly it would be no disadvantage; in the Northern and Central States, however, where the broad and luxuriant red clover fields bloom but to "waste their sweetness on the desert air" with but rare exceptions, this will be a priceless boon to all bee-keepers. With the possibility of its accomplishment, it is worthy of the attempt.

Amiability, however, must be a prominent characteristic of the coming bee, and with this point in view "an amalgamation of races" may be the shortest road to success. We are quite positive we can distinguish much difference between the progeny of a Syrian queen mated with a Syrian drone, and that of one where the paternity is Italian. They are, too, more easily controlled with smoke.

Prolificness, also, will play an important part in deciding the choice of the coming bee. In the majority of locations where honey-producing is a principal industry, our bees are never too strong when the honey harvest comes upon us, but the reverse is the rule, and many of our most successful bee-keepers double up and greatly reduce the number of their colonies to get them strong enough to take the fullest advantage of the yield. So that an improvement in this respect is desired, in our colder latitudes. In the South, where breeding is going on more or less all winter, this is not so desirable —in fact, might be detrimental, as causing too great a consumption of winter stores. To withstand our rigorous northern winters, we need strong colonies of vigorous young bees on the early approach of winter; but in the South this is not so essential, as stimulative breeding can be resorted to at almost any time.

We cannot appreciate the necessity for the employment of two or three fortunes, nor the devotion of a "lifetime of trial and study." A material mistake might be annoying, but not necessarily fatal in gaining the desired result. Where it is possible to obtain several successive generations in a single season, and a number of queens at each breeding, much experimentation may be carried on in a few years, as compared with the breeding and improvement of four-footed stock of all descriptions; and there are scores of intelligent and observing apiarists in America at the present time, who are working with a view to developing a superior race, and have occasion to feel much encouraged.

Nor will it take a ten years' session of the National Convention to determine the matter. There may be differences of opinion, but the masses of the most discriminating will soon "agree upon an open verdict" when perfection is approached, and none are so blind as not to be easily convinced when self-interest is the argument to be met. The best bee will then be recognized as the most beautiful, because the prospective glitter of "money in the purse," realized from their excellence, will cast a silver sheen over the corselet if the coming bee should be a substantial brown, or golden clouds will float in fancy around our ideal bee if it should chance to be the brightest.

In view of the much which has already been accomplished in the improvement of our cherished Italians, we hope Judge Andrews will find other employment for his talented pen, and not indite a word which may tend to discourage the onward march of progress. We care not by what means obtained, whether from "an amalgamation of races," or from careful selection and breeding, we trust no means will be left untried to produce the best. When obtained, we are confident the Judge will be as pronounced in his appreciation as the most expectant enthusiast.

☞ We congratulate the bee-keepers of Kentucky upon the selection of the *Farmers' Home Journal*, of Louisville, as the Organ of the State Association. It is an excellent paper, and worthy of a liberal patronage.

Shipment of Bees by H. A. Burch.—The South Haven *Messenger* of Oct. 28, says:

Since our last issue, H. A. Burch & Co., shipped 22 colonies of Italian bees, consigned to parties in Michigan, Illinois, Indiana, Pennsylvania and Canada. Will the "old reliable" Bee Journal ask *Gleanings* to give this item his "prayerful consideration?"

Certainly; it is "better late than never." Those who ordered bees in May and June and received them about Nov. 1, will think so, but they will also think they have been swindled out of a season's honey and increase, and also out of the difference in price of colonies of bees in spring and fall.

☞ There has been much dissatisfaction for years with the fact that Club agents have offered the Bee Journal at a less figure than the publisher's price. In future this will not be done. We have increased the price to clubs to stop this practice, and give the Bee Journal at one price to all—and that the lowest that can be afforded. We have induced Mr. G. M. Doolittle to omit it entirely from his list, for heretofore that "List" was the greatest impediment to the establishment of a uniforn price. Mr. D. will write for the Bee Journal as usual, and will take subscriptions only at the publisher's price.

☞ *New* subscribers for the Weekly Bee Journal, for 1882, will have all the remaining numbers for 1881 *free* from the time the money is received at this office. Therefore, the sooner they subscribe for it, the *more* they will obtain for the $2.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Market Your Honey.—The *Grange Bulletin* gives the following advice for the present month. It is both good and timely, and should be heeded by those having honey to sell:

> This is the month to market your honey. Remember too, the nicest looking honey will always bring the highest price. Extracted honey in small packages sells best put up in neat glass jars. For larger packages, 2½, 5 and 10 pounds, use tin pails or cans. If in sections, have them all clean and nice, and packed in a neat shipping crate holding not over 20 lbs. each. Sections should all be scraped clean of propolis. In placing in the shipping crates, unless the comb is well fastened at the bottom, turn the sections top down to allow the honey to stand, rather than to hang on its own weight. Paste on a neat label with your name and location of your apiary. Sell as near home as possible, saving transportation and commission. At least, be sure your nearest town is well supplied.

Milkweed as an Insect Intoxicant.—By the kindness of Major D. H. Kelton, Mackinac, Mich., we have received the following item from the *Scientific American* of Oct. 29, 1881:

A writer in the *Pharmaceutical Journal*, speaking of a visit to Kew Gardens, says:

> "It is amusing to see the numbers of bees hanging off the sweet-scented flowers of *Asclepias cornuti* (milkweed) perfectly intoxicated, so that they will not move even when roughly touched, one being noticed by the writer to be apparently "dead drunk" on the ground. The numerous bees which visited the flowers of the teasel seemed to be similarily affected. It would be interesting to learn whether the flowers of the *Asclepias*, which are known to contain a sort of sugar, really do possess an intoxicating principle, since the soma plant of India, alluded to in the Sanskrit Vedas (which some place as far back as 20 centuries B. C.), and the juice of which yielded, by fermentation, an intoxicating liquor, is supposed to be a species of *Asclepias*.

The milkweed must have acquired these intoxicating properties through change of soil and climate, since we are positive that they do not exist in the plant in this, its native country. We have watched bees gathering nectar from the flowers many a time, but we never observed that it had any intoxicating effect upon them, and we do not believe that any one has observed such a fact here.

Honey Show for Illinois.—Mrs. L. Harrison, Peoria, Ill., in the *Prairie Farmer*, thus appeals to the bee-keepers of Illinois to make a grand display at the next State Fair. It can, and ought to be done:

> The State Fair is a great educator of the people, and we do not think it is appreciated as it should be. In what other way or place can a person gain so much useful information as here? The late fair at Peoria was grand, superb, magnificent. It is claimed that a million dollars' worth of implements were on the grounds, and the show of horses and cattle has seldom, if ever been equaled. We consider the poultry show worth five dollars to see, and we felt like crowing as we viewed the thoroughbred fowls, pigeons, ferrets and rabbits in this class. They were a great source of amusement to young people, and will furnish food for thought during lonely hours.
>
> The premiums offered for "farm products" was, for the most part, ample, and brought out a fine display. When we first procured the premium list for 1881, we turned eagerly to see if the "bee" and its product had been remembered. In "farm products," lot 91, we found the following: Best lot of honey, not less than 10 lbs., $5; 2d best, $3. This is all that we could find any way connected with this great industry. Wax-work was remembered, but beeswax, always a staple, forgotten. In class L, Natural History, lot 113, we find this: Best collection of insects, $30; 2d best, $15; and not a "red" offered for the "busy bee," one of the most useful.
>
> We grumbled at this state of affairs, and the officers of the association politely informed us that it was the bee-keepers' own fault. If this is so, bee-keepers of Illinois, arouse! We are not all rheumatic, crippled, or deaf and dumb.
>
> The officers of the "Fair Association" recommend that we have a called meeting of bee-keepers at Springfield at the same time as the meeting of the State Board of Agriculture, to take action on these matters.
>
> Bee-keepers of Illinois, if this call is made will you respond? Every one of you that have for sale a bee or a tin whistle, it is for your interests that a big display is made. At the late meeting of the North American Bee-Keepers' Convention at Lexington, Ky., Mr. Jones, of Canada, gloried much over a big honey show that was held at Toronto this fall—a building over a hundred feet long devoted entirely to this industry. Are we going to be beaten by Canadians? Not a bit of it. Let us rout them by having at Peoria, Ill., next year, the biggest display ever held on the continent. We can do it if we have the grit of our forefathers and mothers.

CORRESPONDENCE.

For the American Bee Journal.

Wintering Bees.

CH. DADANT.

In a friendly criticism of my essay on wintering bees, on page 275 of the Bee Journal for Aug. 31, Mr. Heddon says: "Never before was I so struck with the difference in the actions of bees and the treatment they require in different localities varying so little in latitude."

To my mind, there is no difference in the actions of bees on account of being located here or in Michigan; but there is a difference in the preparation of bees between Mr. Heddon and ourselves. As I said, the instinct of bees directs them to gather, in winter, directly below the sealed honey. If the bees at Mr. Heddon's do not act the same, it is on account of the two inches space that he leaves between the cushion and the top of the frames in his Langstroth hives. I cannot conceive what is the purpose of such an empty space. But such a space of 19x14x2 inches, or 566 cubic inches, is about equal to the entire space between the combs.

When the cushion is directly above the frames, the heat generated by the bees is driven back between the combs, around the group, and warms it; while this empty space of Mr. Heddon's, amounting to 566 cubic inches, stores the heat arising from the bees; but the bees, unable to generate an amount sufficient to fill it and at the same time the space between the combs, are compelled to scale the sealed honey in quest of heat, and to inhabit the empty space. Then the quilt, as Mr. Heddon says, seems to attract them.

Now, as the first requisite in the management of bees is to comply, as much as possible, with their instinct, I advise Mr. Heddon to dispense with this unnecessary space, and he will see that his bees act exactly the same as ours.

Mr. Heddon adds that bees are hardly as safe in a special depository, where the temperature is all the time at 42°, as they are out-of-doors, on account of their inability to pass between the ends of the frames and the hive. I am of the same opinion. A special depository should be maintained at 45°, such at least is my experience, and it is on account of the lower temperature that so many colonies were killed last spring in special depositories.

He thinks that bees can endure more than 5 or 6 weeks of confinement, some of his bees having been confined 5 months. I know that under some favorable conditions all the colonies of an apiary can endure more than 5, and even 7 weeks of confinement, but such a result depends on so many different causes that it is better to have them confined for a shorter than for a longer time.

Amongst a number of colonies some have a strong population, while some are weak in numbers; some have too much unsealed honey, or honey of poor quality, such as honey-dew, or honey stored in cells partly filled with pollen, or with juices of fruits. Does Mr. Heddon think that the colonies weak in numbers, or provided with honey of poor quality or watery, will endure more than 4 or 5 weeks of confinement? I, for one, am sure that they will not.

Of course, all the strong colonies, provisioned with honey of first quality, will endure twice, even three times as long a confinement; but no bee-keeper, so far, has been able to get all his colonies in equally good condition. Then we will see as good a bee-keeper as Mr. Heddon, lose 134 colonies out of 212. Of course, Mr. Heddon will concede that if his 133 colonies which perished had enjoyed a flight every 5 or 6 weeks during last winter, the number of the dead colonies would have been very small.

In writing 5 or 6 weeks as a long confinement, I had not in view the strongest and best prepared colonies, but was giving my ideas of safe wintering for all the colonies provided with bees and stores enough for winter, whatever be the quality of these provisions.

Mr. Heddon disapproves my idea of disturbing the bees in winter, when wintered outside, in order to give them a chance of voiding their intestines. He wants to leave his bees in a semi-dormant state during all winter, but the bees of Mr. Heddon are, no more than mine, in a semi-dormant state all winter, for he adds: "Ordinarily, many times during winter the sun strikes the hive with sufficient warmth to raise the temperature in the hive so that the bees can pass over and around the frames." In such case bees cease to be in a dormant state; they are active, and experience has proven to me that when the bees profit by such a temperature to empty their intestines, they are better prepared for a new confinement.

Of course, such a winter flight is not necessary when bees have been put in a suitable depository, for, in an equal and sufficient temperature bees eat less than when wintered out-of-doors. But I am persuaded that it is necessary, especially with chaff hives, whose thick walls prevent the sun from warming the inside. Most of the colonies which died last winter in chaff hives, would have been saved by this process.

As to putting bees in their winter depositories, I think that nobody will deny that it is better to put them in the cellar immediately after they have enjoyed a good flight, than when their intestines are already partly filled,

I would like to know on what Mr. Heddon bases his idea of the rearing of brood giving the dysentery to bees.

Hamilton, Ill.

For the American Bee Journal.

Bee-Keeping in Nebraska.

WM STOLLEY.

I enclose 3 samples of plants; two of them represent excellent honey yielding plants, and the third is a variety of grass of which I also would like to learn the true name and its value.

No 1. is a flowering shrub or vine, which blooms from early spring till frost, and in dry seasons in particular, is very productive in honey yielding flowers. I took this plant with me to our State Fair, and consulted the bee-keepers there present, as to its true name, but all differed very much in opinion, and therefore I appeal from their verdict to Prof. Cook for a final judgment.

No. 2. is a very late flowering plant, and is represented by various varieties in this section of our State, and is eagerly sought for by bees, in fact, is our best honey producing plant late in the fall. I take it to be an aster, but desire to be assured of it, or stand corrected.

I commenced in the spring of 1880 with 2 weak colonies of black bees, increased recklessly to 8 colonies in the first season. I found that nearly all were very deficient in winter stores in the fall of 1880, some colonies having not more than about 5 lbs. of honey; when, after becoming a reader of the American Bee Journal, I learned a little of "what was indespensable" to winter safely. I fed night and day coffee A sugar syrup, until my bees had from 15 to 30 pounds of stores. This was done as late as the middle of October; besides, I made the blunder of trying as late as the latter part of October to Italianize 2 of my best colonies, but after waiting in vain for 16 days for the arrival of my Italian queens (at $4 each), I reinstalled my black queens, and by the 19th of November I packed my bees in my new-constructed bee house in wheat chaff, leaving an opening for the bees to fly at pleasure. They were contracted by division boards and covered with nice woolen quilts over the frames, and the supers filled with chaff around the outside of the hive; about 12 inches was packed closely with chaff and straw, and then I shaded the entrance with a board. Thus my bees remained 106 days without a flight, and on Feb. 1, all but 2 colonies showed some signs of dysentery. On March 1, it being the first warm day since their confinement, I cleared away all the snow in front of my bee house for about 20 feet wide, tore down the front wall, and opened the entrances of the hives fully. Soon the air was filled with bees, and I verily believe that this flight saved my bees. They all came through strong in number, compared with the condition they were in when they went into winter quarters. But the two queens which had been kept 16 days in October and November from their colonies, proved to be dead, and I had to unite them with other colonies.

So I commenced the spring of 1881 with 6 colonies; have, with the aid of 20 pounds of Dunham comb foundation, and 2 Italian and 1 Cyprian queen (bought from Rev. A. Salisbury), by means of artificial increase, now 14 colonies in the best of condition. Seven colonies are very heavy, and when they are contracted into proper space for wintering, considerable surplus will be taken from them, while my weakest colonies have plenty of stores to winter on.

I have come to the conclusion, that bees will do well, even in this part of Nebraska, if properly handled, and by the growing of melilot, borage, buckwheat and other suitable honey producing plants. I am convinced that apiculture here, will pay better than the growing of wheat and other grains. My Cyprian colony, so far, has done best of all. Their queen is by far the most prolific, and I have failed to find the Cyprians less amicable than my Italians; but my experience is too brief to be conclusive, and I will try them another season before I can speak intelligently.

I have sowed quite a variety of seeds for honey producing plants, and found borage (the seeds of which was sent me by the Agricultural department at Washington), to do exceedingly well. Ever since June up till date. Borage is full of bloom, and bees are to be found on from early morning till late in the evening.

Melilot, of which I have sown 1 acre, has come on well, and I am anxious to see how it will winter, and then turn out next summer. I find that my cattle have commenced to feed upon melilot, and would eat it clean if I would let them. The specimen, No. 1, which I have sent you for identification, does best on very high and dry land; it is not injured by drouth, but on the contrary is benefitted by it after it is well established, and then yields an abundance of honey, and is visited by bees every day and at all times during the day; but I do not know anything as to the quality of its honey. I think enough of it to plant at least 1 acre with this shrub this fall.

Grand Island, Neb.

[No. 1 is matrimony vine (*Lycium vulgare*); No. 2 is aster, and the grass, as Prof. Beal tells me, is *Bromus ciliatus*, a poor species of grass.—A. J. Cook.]

For the American Bee Journal.

Too-Early Brood Rearing.

O. O. POPPLETON.

I judge from what Mr. Kohnke says on page 339 of the Bee Journal, that he has misunderstood Prof. Cook's remarks on how pollen is detrimental to bees in winter. I did not understand Prof. Cook to say that he thought "the presence of a large amount of pollen would induce bees to gluttony and cause sickness," but think he stated as his opinion that such is not the case. His idea was that the presence of pollen was apt to induce bees to breed largely early in the season, and that this too-early raising of brood was, in his opinion, a common cause of dysentery, followed, of course, by spring dwindling and loss. I do not attempt to give his exact words, but the above is a concise statement of his views as I understood them. If I understood him wrongly, the Professor can easily correct me in the next issue of the Journal.

I have lost so few colonies during the past 6 or 7 winters, that I have had little opportunity of observing how far pollen may be detrimental to bees, but I pay no attention to whether there are large or small amounts of pollen in the combs selected for wintering. I have noticed, however, that of late years my bees have not commenced brood rearing in earnest until the weather has been such that they could fly nearly every day, and I am strongly inclined to the opinion that Prof. Cook's idea of early brood rearing being one of the prime causes of loss in wintering, is correct.

As I stated at the Convention, I do not believe the loss of bees in winter can be traced to any one cause. Of course the fewer causes of loss we have present with our bees, the more certain will we be of wintering safely, and I am glad Prof. Cook has called attention to the fact of too-early brood rearing being one of those causes.

Williamstown, Iowa, Oct. 28, 1881.

For the American Bee Journal.

Apiary Record Book.

E. A. THOMAS.

There seems to be a much-felt want among bee-keepers, and a want which has hitherto never been met, and that is for a neat, tasty record book for the apiary. Cannot our friend, the editor of the Bee Journal, get us up such a book, neatly and durably bound with printed headings all ready for use? I am sure, from numerous correspondence on the subject, that such a book would meet with a ready sale among those who are desirous of improving or keeping up the standard of their bees. It should be in convenient form for carrying in the pocket, so that the apiarist can have it with him while at work and take it out, make an entry and return it again to his pocket without minding the time. Such a book must be used in order to be appreciated, and I am satisfied that no one, after having once used it, will be willing to give it up. For many years I have kept a careful record of every queen and colony in my apiary, using for that purpose a small memorandum book which I ruled and headed myself. There are many advantages to be derived from keeping such a book, among the most important of which is the accuracy with which a queen showing any remarkable qualities may be traced, and the help it affords the bee-keeper in selecting and rearing the finest drones and queens.

While examining a gentleman's bees last summer, my attention was called to a remarkably fine queen, and I inquired what stock she sprung from?

"Well," said he, "I really don't know; I wish I did, for I want to get some more queens of the same party."

"How old is she?"

"I can't tell you that, either."

"Don't you keep a record of the age of your queens?"

"Yes, I have intended to keep a record of them on the hives, but by changing hives, etc., they have got badly mixed."

Happening to have my book in my pocket, I showed and explained it to him, when he exclaimed:

"Why, I would give a good deal if I had such a record of my bees extending back 5 years or so."

The following is a description of my book: Each number or stand occupies two opposite pages, and has two spaces at the left for dates, and then a wide space for any remarks which would not properly belong under any of the other headings. The next space is for writing the number of the hive to which the queen is removed, either in a colony or for any purpose. The next is for writing the age of the queen, and the next two for the race of bees and the particular strain respectively. Then follows five narrow spaces headed respectively, Industry, Prolificness, Hardiness, Gentleness, Beauty. I use 100 as a standard and mark my queens by that, and I can tell in less than a minute just what a queen is and how valuable. This is what has enabled me to breed up my present superior strain of Italians.

I have given this brief description in order to draw out friendly criticism, as I do not doubt but that some of you may be able to suggest improvements. I think Mr. Newman can get up just such a book as we want, and if bee-keepers will use it, and base their reports upon it, we may arrive somewhere near the truth as regards the value of the different strains of bees.

My bees are all ready for their winter quarters, and in a few days we shall put them in. Having kept them breeding very late, they will go into winter quarters strong in bees and with plenty of good food. I know of no reason why I cannot winter them as successfully as I did last winter. My Holy Land bees outstrip everything as breeders. I have one colony which has 5 good frames of sealed brood and larvæ, and several others which have 4 frames.

Coleraine, Mass., Nov. 1, 1881.

For the American Bee Journal.

Would it be an Honest Transaction?

WILLIAM CAIRNS.

I notice the following editorial remarks in *Gleanings* for Oct., page 496:

"The Holy Land bees certainly have some strong points of difference that promise well. We often send them out to fill orders, and I have never yet heard them called anything else than nice Italians. The bees would please almost anybody in appearance, and we have never yet had a complaint of their being cross, like some of the Cyprians."

Now, are we to understand by the above that, should we order from Mr. Root an Italian queen he is to send us just what he chooses, and it is all right so long as we do not know the difference? That is on a par with the dairyman who would ship a customer a tub of oleomargarine, and would console himself that the customer would not know the difference between that and good butter.

Rockland, N. Y.

For the American Bee Journal.

Bee Items from Maine.

S. H. HUTCHINSON.

I am a constant reader of the Weekly Bee Journal. Bee-keepers of Maine, or at least those in this section, have not had very great success in obtaining a large crop of honey, but we have not entirely failed in this respect. We know nothing of the large yields of honey that bee-keepers report in other States, but what we do obtain we get a fair price for; we readily obtain 25 to 30 cents per pound for all the comb honey we can produce. So, if we do not get as many pounds, it is in some degree made up to us in price. Our bees have done quite well here this season. If we can obtain, say, 25 lbs. of comb honey per colony and one good swarm, with plenty of good honey for winter, we feel satisfied. I find, by looking around among the neighboring bee-keepers, that the Italians and hybrids are the best off by far in the line of honey for winter. The blacks have done very poorly in this section as a rule.

Those who like black bees can keep them, I want none in mine. For comb honey give me a good hybrid, from a pure Italian queen mated with a black drone. I have always had the best results with hybrids; in fact, I never had a very light-colored queen, purely mated, and whose bees were very yellow, that gave me a pound of honey in sections. I have had very dark Italians that done well in sections. How it would be with the extractor I am unable to say, as I have never used one. Extracted honey has no sale here, as long as comb honey is in the market. Perhaps if people could be brought to see that extracted honey is better and more healthy, it would be better for us all, as I am quite sure we could get more honey by the use of the extractor. I think I shall try it in a small way another season.

Mechanic Falls, Me., Oct. 24, 1881.

For the American Bee Journal.

Preparing Bees for Winter.

W. H. STOUT.

I have wintered my bees successfully for several seasons by preparing them as follows:

Contract the brood chamber to 6 or 7 frames in which have 20 to 25 pounds honey, cut a hole of about ¾ inch through each comb about 2 inches below top bar, lay a stick about 8 inches long, ¾ inch square across top of frames, cover with sheeting, woolen cloths or quilts, then an old sack of loose texture containing about a bushel of oat chaff pressed in close, then the cover or cap with a hole 1¼ inch bored at each gable end, and covered inside with wire cloth for ventilation. Around the hive a box, about 6 inches space all around for packing, which is filled with oat chaff and covered to prevent getting wet. For entrance, have a 5-inch bottomless trough 7 inches long, about 5 inches wide and 4 inches high inside.

My hives are mostly simplicity style 2 story, movable cap, frames, 10½x14 inches. I pack chaff about 6 inches higher than the brood chamber. During the winter I keep the snow from entrance, and on fair days I remove the cover from outside box and cap from hive, to dry the packing as the moisture passes through the chaff and settles on top like frost.

If the weather is mild enough, we take the bags with chaff off, and expose to sun and air until dry. This had best be done only on days when the bees can fly, as to work around the hives will likely disturb them and break the cluster, which should be guarded against. I usually leave them packed until the weather is settled and the bees find some honey and pollen.

During warm days in March, I place rye and oats chopped together, where the bees can work at it in sheltered places, and they work at it quite readily. By this plan I have wintered successfully and had early swarms, while most bees around me were either dead or very weak the past season.

Pine Creek, Pa.

☞ We consult the best good of our readers in recommending them to now secure the valuable and important information and most interesting reading matter, including a thousand or more of pleasing and instructive engravings and sketches, that can be obtained at a trifling expense in the *American Agriculturist.* This is not merely a farm and garden journal, but is is very useful to every house keeper and to every household in village or country. It has an entertaining and useful department for the little ones. It is a journal that pays to take and read. Its constant, persistent exposures of humbugs and swindling schemes are worth far more than the cost of the paper. The 41st annual volume begins Jan. 1, but those subscribing now for 1882 get the rest of this year free. Terms: $1.50 a year; four copies $5 (English or German edition). Single copy, 15 cts.

☞ The Texas State Bee-Keepers' Convention will be held at McKinney, Texas, on Tuesday, April 25, 1882.

CONVENTION NOTES

Kentucky State Convention.

SECOND DAY.

The committee on nominations recommended the following, who were elected by ballot:

President—Dr. N. P. Allen.
Secretary—Wm. Williamson.
Treasurer—I. B. Nall.
First Vice President—Dr. L. E. Brown.
County Vice Presidents—Dr. Dillard, Fayette; H. H. Littell, Jefferson; Thos. Snyder, Logan; S. Collins, Spencer; Dr. Keene, Woodford; Rev. L. Johnson, Boone; W. P. Pelham, Mason; Mr. Bartleson, Wayne; Dr. J. R. Larue, Bath; I. N. Green, Barren; Alex. Sayers, Nelson; Jas. Erwin, Allen; L. T. Mobberly, Hardin; J. D. Davis, Cumberland.

Dr. Allen, in taking the chair, after reelection, returned thanks and asked the Society to aid him in the work. He thought the people should be educated, and that there ought to be a society in every county. In this way only would people take an interest in bee-keeping. He said this State Society had grown out of a small beginning at his residence, several years ago. He said men had learned to keep bees and produce honey simply by the interest taken in the Society. He hoped every Vice President would organize a local society in his county.

The following, by Dr. J. P. H. Brown, of Georgia, was read on

Marketing Honey.

Whether the production of an article is profitable or not, depends altogether upon the demand for it. The demand for an article is generally governed by its utility; how far it administers to the health, comfort and pleasure of the purchaser, and the extent it pampers to the fashion of society. The sale of an article is generally based upon its character, appearance or representation.

The successful and wide-awake merchant grades his goods and puts them up in the most attractive form to please his customers. His salesmen also possess a knowledge of the qualities of the goods, and are able to represent to the customer the merits of the article offered for sale. Thanks to our apicultural literature and bee-keepers' societies, our honey producers are generally learning how (as well as the necessity) to put up their product in a convenient and neat shape, observing all the conditions to have it clean and inviting in appearance. With many persons, this latter condition has more influence than prime quality.

In this short paper, we have no time to refer to all the particulars necessary to be observed in marketing honey, but shall only offer a few suggestions for the seller to think over, enlarge upon and modify to his particular case.

We believe there are but few places where honey cannot find a market. Illustration: Dr. J., located in a small village in Middle Georgia, had been keeping bees for several years, more for pleasure than profit, but this season he concluded to run for profit, and he found his dozen colonies of bees paid him more money than did 2 acres in cotton. Before this he thought he could find no market for his honey, but after he put it up in nice shape and offered it for sale, he had no trouble to sell it at a fair price. Hence we believe it is always possible to build up and increase home markets. Such markets, as a general thing, are always the best—they save freights and commissions.

It often becomes necessary to consign our honey to commission merchants, or to ship to distant markets, etc. When this course is required, it should be put up in the best possible manner. If shipped in wooden vessels, they should not be larger than from 10 to 20 gallon kegs, and should be made out of the best material, so they will not leak. A barrel that will hold water may not hold honey, and hence such test is no guarantee of security. We prefer from 1 to 5-gallon square tin cans, with tops and bottoms well soldered on. The top has a hole and collar to admit of an inch cork. If necessary, this cork can be secured in with a coat of plaster of Paris on top, within the collar. When honey arrives in a leaky condition with everything smeared up, it generally goes to the cellar or back part of the store, to remain unsold; but when it is put up in convenient packages that are clean and nice, it is apt to be kept in front where people can see it. Commission merchants are often not as much to blame for low prices and slow sales as the slovenly, careless shipper.

It must not be supposed that every grocery merchant is suitable to sell honey. There must be a natural fitness for such business. Those who push their business by a judicious application of printer's ink, and have a fancy business in the retail line, are the ones to select, particularly if backed by a reputation for honesty and reliability. It is best for the bee-keepers of a neighborhood to center upon the same man, so as to offer him sufficient inducement to build up and extend the trade. By this course, prices can better be sustained and the market enlarged.

In many of the large cities there are merchants who make the handling of honey a specialty. Most of these men are reliable, and always pay the market price.

Atlanta, Ga.

Dr. L. E. Brown stated that he saw Dr. Drane's shipments. The barrels were coated with wax on the inside, and the extracted honey allowed to stand before barreling.

Mr. Demaree said it was not necessary to wax the barrel, as soft wood barrels could be used. His plan was to allow his honey to stand in hot weather at least one week, when the honey is drawn from bottom. He prefers 100-lb. casks, or small glass jars for local trade. At first he could not sell extracted honey, but now cannot supply the trade.

The report of the committee on supplies was received and read as follows:

Your committee have examined the supplies on exhibition, and desire to especially call attention to them:

Wm. Hamilton, Louisville, Ky., has observatory nuclei of Cyprian bees and queens; foundation machine; 6 cases of nice honey in 1 and 2-lb. sections; Isham sections glassed, and one-piece sections.

Dr. A. W. Kaye, of Pewee Valley, Ky., 1 and 2-lb. unglassed dove-tailed sections of honey, brood frames, frames for sections, and one-piece sections.

Mr. A. Schneider, Louisville, Ky., a beautiful display of extracted honey.

Mr. L. T. Mobberly, of Long Grove, Ky., exhibited a bottle of extracted honey from the narrow leaf or water oak, extracted late in September.

A display of foundation by Charles Dadant & Son, Hamilton, Ill.

The AMERICAN BEE JOURNAL, *Bee-Keepers' Magazine*, *Bee-Keepers' Guide*, and *Bee-Keepers' Instructor* were on the table for free distribution.

Your committee recommend that a vote of thanks be tendered to the able editor of the *Farmers' Home Journal* for reporting and giving notices of this meeting.

Your committee recommend that all the members be requested to make a display of honey, bees, supplies, etc., at the next meeting of the Convention. A. Schneider, Louis Hofstetter, L. T. Mobberly, H. H. Littell, Committee.

ADULTERATION.

Mr. Littell said it should be the duty of members to use their influence to get a law prohibiting adulteration of honey, butter, etc. There is a law in this State, but it is not enforced, and needs amendment.

Mr. Cook moved that the President appoint a committee to prepare a bill covering the ground.

Mr. Williamson said there was already a law in Kentucky making a penalty of $50 for first offense, and $100 for second offense. It was only necessary for members of this society to see that it is enforced.

Messrs. Demaree, Mobberly and Hofstetter thought there were so many difficulties in the way of executing the law that it would remain a dead letter, and that honey would sell on its own merits, and the name of the producer would be the best protection honey could have.

The resolution was adopted and the President appointed G. W. Demaree, Chairman, W. Williamson and I. B. Nall.

Mr. Hofstetter moved that this association offer a prize of $25 to any person who shall give satisfactory evidence that he has succeeded in fertilizing queens in confinement. Adopted.

Mr. G. W. Demaree read the following on

The Several Races of the Honey Bee—Their Relative Merits, Etc.

The honey bee has been in a state of domestication for thousands of years, and yet but little was known of the several races or varieties of this highly-prized insect until the past few years. This is not surprising to some of us who have lived to see the mighty revolution that has taken place in the way of increase of knowledge and improvements in all the affairs of men. It would seem that knowledge has been accumulating for ages to burst forth in these days like a new creation.

Of the honey bee (*Apis melifica*), there appears to be but the one species. This is proven by the fact that when the several races or varieties of the species come in contact, hybridization is the result, and the hybrid queens are not only capable of producing progeny, but are exceedingly prolific.

While there is but the one species, this is divided into two distinct families or races, viz: the yellow, or light-colored race, and the black, or dark-colored race. To what extent these two branches (the yellow and the black) of the great family of the honey bee has been effected by hybridization in the past, is a problem to be solved by long and careful experimenting, as there is no history of the races of the past upon which to base a conclusion.

The German, or common black bee, is considered the great representative of the dark races of bees. In a state of nature, it is, perhaps, the purest (in the sense of unmixed blood) race of bees in the world. No amount of skill will make them "sport," or show the outcropping of mixture of blood. It has been more generally cultivated in the past—if bees kept in "skeps," gums and boxes can be said to have been cultivated, than any other race of bees. This, however, is no evidence of the superiority of the race, but was owing to the energy and civilization of the people who occupied the countries inhabited by these bees.

Although worthy of cultivation in the absence of the superior races, the common black bee is inferior in many respects. They lack robustness of constitution, and therefore succumb to adversity. They fail to protect their comb against the ravages of the bee moth, when the least weak or discouraged, and at all times and under all circumstances they are fidgety and irritable in temperament. There is set down to their account one valuable trait, and that is they produce whiter comb honey than the superior races do. This is owing to the fact, that in capping the honey cells, they lay on the wax more unsparingly, and the surface is whiter thereby, in the same way that a thick coat of white paint gives a whiter surface than a thinner one.

The Italian bee was first introduced into this country about the year 1860, and though sold at first at fabulous prices, gained in favor rapidly, and has spread its influence throughout our vast domain. The Italian belongs to the yellow race of bees. To the beauty and docility of this race of bees we are indebted for the advanced state of bee science more than to any other cause, except the inventive genius of the immortal Langstroth. The pure Italian bee has all the traits of perfection, superior length of tongue, is industrious, gentle, beautiful, powerful for strength and full of courage. Previous to the importation of the Italian, it was thought that the bee moths would finally exterminate the honey bees in this country. But time and experience has shown that the fault was with the native bees rather than the increase of the bee moths. The Italian is abundantly proof against the bee moth, and has conquered a lasting peace between the apiarist and his once formidable enemy.

The Cyprian bee was imported directly to this country from the Island of Cyprus, in the summer of 1880, by Mr. D. A. Jones, of Canada, than whom no apiarist has done more for the bee-keeping interest, as an importer and breeder of bees. The Cyprians belong to the yellow race. Whatever may be said to the contrary, they differ but little in appearance from the Italians, and what has been said of the latter race may truthfully be said of the Cyprians, except that they are not so quiet and pleasant to handle. Judging from my experience with these bees, I cannot but think that their fighting proclivities have been sadly exaggerated. I have handled them in my own apiary, and in the apiary of my friend, Dr. Rogers, of Shelbyville, Ky., who breeds from imported stock, and being a great admirer of the Cyprians, keeps no other bees; and I say emphatically, that I can "handle them" without annoyance.

The Palestine or Syrian bees were imported from the vicinity of Jerusalem, Bethlehem and Mount Lebanon by Mr. Jones in the spring and summer of 1880. Mr. Jones, in his enthusiasm as an importer of valuable races of bees, visited the "Bible Land" in person, and selected these bees from the several places named. They belong to the yellow race, and resemble the Italians and Cyprians very much, though it is said that they are smaller in size. The queens are exceedingly prolific, and are likely to be great swarmers. Of their working qualities I am unable to speak from experience, though I doubt not but that they have many good qualities.

The coming bee will certainly be a cross between the Italian, Cyprian and Syrian bees. This must be so, as the legitimate result of the causes now at work. The Cyprians have been introduced in Italy, and are being bred in the same apiaries with the Italians in their native home. While the Syrian bees have been taken to the island of Cyprus, and all three of the races are being bred together all over this country. Who will be able to separate them? The gentleness and industry of the Italian, the robustness of the Cyprian, joined to the prolific, swift-winged Syrian will give us the "coming bee," which will be the pride of the American apiarist.

Christiansburg, Ky.

REPORTS OF VICE PRESIDENTS.

J. D. Davis, Cumberland Co., reported a heavy loss of bees last winter, a good honey crop this season, a large increase of colonies, and rich fall harvest. Bees are in good condition for winter.

I. N. Greer, Barren Co., reported a flourishing county association; a short crop of honey, but bees in good condition for winter.

James Erwin, Allen Co., reported that the poor season last year, together with the unprecedentedly cold weather, was so disastrous in its results as to cool the ardor of tyros in bee-culture. Probably three-fourths of the bees in his section perished. His loss was comparatively nothing, as he had sold off most of his bees last fall. The honey harvest in this locality has been very moderate. We are having a rich fall harvest. Bees will go into winter quarters in excellent condition. His bees increased to double the number he had in the spring, and gave an average of 30 lbs. per colony.

Mr. Williamson offered the following:

Resolved, That in order to educate the youth of our State and the country at large in the science of bee-culture, that we recommend to the President and board of directors of the State Agricultural and Mechanical College, a department in apiculture, and that an apiary be established at the college grounds in Lexington; that lectures be given, and practical lessons in apiculture be given to the students; that a committee be appointed to confer with the President and directors of our State college.

The resolution was adopted, and the following committee appointed: Wm. Williamson, G. W. Demaree and Dr. L. E. Brown.

Mr. Williamson offered the following, which was adopted;

Resolved, That the *Farmers' Home Journal*, of Louisville, be the official State organ, and that the bee-keepers of our State are requested to write reports and papers from time to time to be published in said official organ, and that all are requested to subscribe for it.

The committee on resolutions offered the following, which were adopted:

Resolved, That the thanks of this association be tendered Col. Maginness and the managers of the Louisville Exposition for courtesies tendered the convention, and for the use of the press room to hold its sessions in. That the thanks of this society are due Col. I. B. Nall, editor of the *Farmers' Home Journal*, for publishing the programme and notices of the meeting in his valuable paper. That we appreciate the reports of bees and honey, as made by Commissioner Bowman, of the Bureau of Agriculture for Kentucky. And thanks are due to the city papers for publishing items of interest of Convention. To the officers of this society for their efforts to make this meeting both pleasant and profitable. That the *Farmers' Home Journal* and the AMERICAN BEE JOURNAL be requested to publish the proceedings of this meeting.

Resolved, That we recommend to farmers and bee-keepers the importance of preserving honey producing trees, shrubs and plants for shade and ornamental purposes, and that we recommend the planting of such trees as linden, poplar and maple as shade trees, upon the farm and along the roadside.

Resolved, That we recommend to bee-keepers in Kentucky and southern Indiana to winter bees on the summer stands with blankets or light chaff cushions over the brood chamber.

On motion of Mr. Williamson, the Central Bee-Keepers' Association was consolidated with this Association.

The next meeting will be held in Louisville, the executive committee to fix the time.

On motion, Mr. Wm. Cook was requested to write and publish in the *Farmers' Home Journal* an article on "Who shall keep bees?"

On motion, it was requested that all members of the Society add to the membership by getting the names and fees, and forward same to the treasurer.

The meeting adjourned, to meet at the call of the executive committee.

* * *

Read before the National Convention.

Origin of our Present Races of Bees.

E. E. HASTY.

The configuration of the earth into continents or islands has played an important part in adjusting the present species of living creatures that dwell on the earth. In North America, for instance, we have a curious duplication of species, which is well exhibited in the different species of deer. We have two species of red deer, two species of black-tailed deer, two species of elk, and two species of reindeer. The key to this peculiarity seems to lie in the fact that in remote ages, our continent was divided into two continents, Canada and Colorado, with a shallow sea between them. Similar, but not quite identical species grew up on the two continents; and then when the Mississippi valley became dry land, and united the two continents into one, we were provided with a duplicate lot.

The Canadian species seem generally to have proved much more vigorous than the Coloradan, teaching us how the Canadian bee-keepers will "clean us all out" if we don't "mind our eye." The Canadian red deer has driven the Coloradan red deer almost into the Pacific; a limited territory around Acapulo, in Mexico, containing all there is left of the species. The Canadian black-tailed deer, retreating itself before the red deer, has driven the Coloradan black-tailed deer over the mountains into Oregon. The Canadian moose, however, not fond of prairies, has left the Coloradan elk pretty much undisturbed.

Turning now to the subject proper, we note that around the cradle of the human race in Armenia, Syria and Egypt, 3 great continents converge. It is not to be expected that each continent would have its characteristic bee. It is also presumable that along the border lines the three primitive races would, in different proportions, mingle with each other, forming in the process of time additional races. This is the gist of the present paper: The Caucasian, the Palestine, the Egyptian, the Cyprian and the Italian bees formed by varied crossings of the three primitive bees of Europe, Asia and Africa.

The primitive bee of Europe is the well known black or German bee, so familiar that we need not waste words upon it. The Asiatic bee we will assume (but not with entire confidence), to be the Apis Indica. Central Asia, like South Africa, seems to have been for long ages drying up, and changing to desert, and possibly the primitive bee we are looking for has become extinct, or nearly so. At any rate, we need not accept the Apis Indica, as Mr. Benton saw it in Ceylon. In that quarter of the globe, it may have been debased somewhat by crossing with Apis florea. A traveler (whose name I cannot at this moment give), lecturing before a Michigan society, gives us the best sight of our object. He states that the natives of the isle of Formosa, off the coast of China, have a yellow-banded bee of such gentleness that they allow the bees two entrances, one opening inward into the house. The hives are built into house walls, as in other countries, as a security against theft. I take it that in this far off eastern island we have the Asiatic bee, or Apis Indica, in its finest and purest strain. If we want this bee, Formosa would be just the place to send for it. It is the only place yet reported where it is regularily kept as a domestic bee. We may, without very great uncertainty, describe the primitive Asiatic as a yellow-banded bee, somewhat smaller in size than either the German or the African, very energetic and prolific, but too much given to swarming, and willing to live in colonies too small for the best results in honey culture. Drones of this race are dark colored. The strong point of the race seems to be their wonderful disinclination to sting—approaching almost to the heroic forbearance which so surprises us in ordinary queens. The workers, when on the wing, are very quick and agile, contrasting strongly with the somewhat blundering movements of the Germans and Italians.

The African bee, if I am correct, is only known to us by means of its first cross, the Egyptian bee. Most likely the pure race could readily be found in the wilds of Soudan or Abyssinia. Although an invisible element of our calculation, we will read his character thus: A little larger than the Asiatic, and like that race yellow banded, prolific and vigorous; it is the exact opposite of the Asiatic in temper—a perfect fiend, in fact, who seems to have got his manners by associating with the king of Dahomey. As some of our composite bees have yellow drones, and both the other primitive races have black drones, I should assume that the drones of the African race are yellow.

Having now our three elements, we will try to trace the probable method of mixture. Reverting for the moment to Formosa, we remark that if aborigines can keep bees now, we may suppose that they could keep bees 4,000 years ago. Bee-keeping probably began in Asia at a very early date, and with the gentle Asiatic bee that seems to have been made on purpose to be handled. But who carried the art to other Continents, to Egypt and Carthage and elsewhere? Most likely the Phœnicians, those universal Yankees of the early ages, disseminated both the idea of bee-keeping and the Asiatic bee. The gentle bee thus introduced into the north of Africa, was soon crossed and almost overwhelmed by the diabolical native bee, producing the present Egyptian race that extends along the north of Africa as far as Morocco. We may reckon the Egyptian bee as one-third Asiatic, nearly two-thirds African, and a slight dash of German, obtained by way of Syria.

Meantime, the German and Asiatic bees were meeting at the boundary line of their territories, in the Caucasus, and forming a new race without human intervention. We may reckon the Caucasian bee as one-half German and one-half Asiatic, without any admixture of the African. This bee seems to have taken the mild disposition of its Asiatic parent almost without change. A traveler speaks of repeated efforts to get a sting from them, all ending in failure, until, having reached the region of the Black Sea, he got the coveted sting by getting down on his hands and knees and blowing into a hive. Even then he reflected that he was outside of Caucasus proper, and probably the bees were not pure. Excess in the building of queen cells, and in swarming, seems to be the weak point of this race, a hundred queen cells having been found in a hive at one time. Professional bee-keepers have no occasion to import the Caucasian, but I am impressed with the idea that some of our people would like it. Many persons who have not the time to keep bees, by rule, would be glad to raise honey for their own tables, and either this bee or the pure Asiatic may prove best adapted to such. Letting bees increase from one hive to a dozen during the summer, and closing out half of them to appropriate their stores in the fall, is not very progressive or very elevating business, but perfectly legitimate, nevertheless. I know some of our bee folks will scrowl at this suggestion, but, as the cook remarked about skinning eels alive, "they're used to it." Doubtless in the Caucasus bees are never kept in any other way.

In early times, the bees of the Holy Land evidently partook very strongly of the African type. The Scriptures, which speak so highly of the ant, never mention bees with admiration or approval, but repeatedly advert to their ferocity. These early bees were wholly wild. The change to the present Palestine bee was effected by means of three different infusions of blood—wild bees of the Asiatic race from the northeast, the domestic bees brought to Phœnicia, and German blood, which, in the course of centuries, worked down from the north. We may reckon the present Palestine race as one sixth German, one-half Asiatic, and one-third African. Their rapid movements show plainly a large percentage of Asiatic blood, and their warm temper points pretty strongly to Africa.

Along the line from the Caucasus to Venice, a pretty lengthy border, we find various sub-races, which may be regarded as second crosses—more German blood added to the Palestine or the Caucasian, or to both combined.

Cyprus, having already some Germans in a wild state, seems to have imported domestic bees from Egypt, after the stock there had been pretty badly Africanized. The climate is a trying one, and the sea has kept off all recent infusions of blood, and the result is one of the most fixed and uniform of the composite races. We may reckon them as one-sixth German, one-third Asiatic, and one-half African. I wish to mention the interesting fact, contributed, I believe, by Mr. Henderson, of Tennessee, that before a Cyprian bee had been brought to America, bees practically identical in markings and temper, were produced from Italian parentage. This shows that the original ingredients of the two races are similar, the diversity being caused mainly by the ingredients being mixed in different proportions, and by climatic influences.

The possession of Italy by a yellow-banded race is geographically a little curious. I surmise that some bee-disease, or some great drouth had nearly exterminated the original German race from Italy just before domestic bees were brought in. These latter were probably brought from Carthage, a voyage which with favorable winds was sometimes made in 3 days. The imported bees multiplied so greatly that they were able to form a nearly equal cross with the decimated natives. This, if we have figured the Egyptian race correctly, would make the Italian bee one-half German, one-sixth Asiatic, and one-third African. Repeated experiments in careful hands have shown that an even cross between the Egyptian and German does produce indubitable Italians.

Reports from time to time have appeared, that long before any Italians were brought to America, there were yellow-banded bees in the forests of Arkansas. Such stories were promptly poh-pohed down; but like the well worn ghost of tragedy, they won't stay down; ever and anon the same statement comes again. The last one, which was an article in "Gleanings" of not many months ago, was, perhaps, the most definite of all. The bees were in some respects a superior race. Their colored bands were redder than the Italian bands; and what is most startling, as it is just what might be expected of an oriental race, the bees themselves were smaller than other bees. Did the Phœnicians, when they reached our Pacific shores 3,000 years ago, bring their bee with them? And did the bee, after becoming extinct in Mexico, still survive in the more favorable climate of the Red River country? Surely, after finishing up Ceylon and Java, we might brace ourselves to the task of exploring dark and distant "Arkansaw." Cannot the Association find somebody—a reckless fellow who don't count his life much, and so steeped in tobacco that cannibals won't eat him, who will go and see if they still have the bee of queen Dido and king Ethbaal?

In conclusion, I would remark that much of the ground traversed in this essay is ground from which positive data cannot be collected. The hearer will understand that positive assertion is not intended, even when the language takes the form of assertion, instead of the form of hypothesis. Theories have their uses as well as demonstrations, and as plausible theory, I commend these deductions to the audience.

Richards, O.

* * *

Overstocking—Marketing.

At the District Bee-Keepers' Association of Southern California, President J. E. Pleasants gave an address, of which the following is a synopsis:

It gives me great pleasure to welcome you on this occasion. United as we are by a common interest in all that appertains to bee-culture, let us greet each other with pleasant smiles and sincere congratulations.

We have come from all parts of the district, not only to have a happy reunion, but also to debate on what will interest us all.

The year of 1881 will be recorded by the California bee-keeper as almost a total failure in his occupation; but should that discourage him? Should that make him give up a business for which he has been for same time perfecting himself? and for which, perhaps, he is peculiarily adapted? No! Perseverance, dexterity and economy will bring us success in almost every legitimate business in which we engage.

Gentlemen, one of the most important subjects for us to discuss is, "Overstocking our range with bees." Can it be done? I say it can, with bees as well as with animals. I am well aware that during our sage and sumac harvest it would require a large number of colonies to gather all the nectar from the millions of flowers that bloom in our mountains; but as this great flow of nectar does not continue very long, it is unwise to have more bees than can go on with brood-rearing after the sage, sumac and buckwheat have ceased to bloom, or before they come in bloom. I think that it is admitted by some of our principal apiarists that a given point can be overstocked, and those that are fortunate enough to count their colonies by the hundreds, divide them into separate apiaries.

This season of drouth, though very hard on the majority of bee-keepers, will, I hope, teach us this—not to push our honey on the market all at once, but to hold for more remunerative prices.

When it comes to the quality of honey, Southern California need not blush to compare her honey with that which is produced in any other part of the world. It is acknowledged in all markets where it has been tried that California honey is unsurpassed. We have the quality, and on an average we have the quantity....

Having the best honey in the world, let us put it on the market in a good, neat and suitable package, thereby creating such a demand for our honey that the doleful cry of overstocking the market will be changed to the cheerful inquiry of, "How is the demand to be supplied?" To me, the future prospect of the California bee-keeper was never more promising than now. In the near future, apiculture will not be a game of chance as it has been in the past. A few good seasons and proper management will enable us to issue from darkness into light, therefore let us

> Faint not! for to the steadfast soul
> Come wealth and honor and renown.

In looking over this assembly, I see but few of the fair sex. Why is it so? Are we all bachelors, or still worse, woman-haters? No! Most fervently I hope that neither charge can be laid at our door.

Let us in the future induce as many ladies to attend as we can; also invite them to take part in our discussions. You all are aware that in England the President of the British Bee-Keepers' Association, Mrs. Burdette-Coutts Bartlett, is a lady whose fame is world-wide. In the United States, some of our best apiarists are ladies. I am confident that by exerting ourselves, we could induce the ladies to grace our Conventions.

Before closing, allow me to say that it is my great desire that peace and harmony may prevail during our Convention, and that the time spent here may be both profitable and pleasant, so that when the time comes for each one of us to go our different paths, we may have nothing to regret, but that we have to part.

* * *

☞ The Michigan State Bee-Keepers' Association, will convene at Battle Creek, on Thursday, Dec. 8, 1881. We have reason to expect one of the largest and most interesting meetings we have ever held. Let all arrange to be present. All District Associations should send delegates. Each person should come with their best experience in their hands, ready to hand it over to the others of the fraternity. Commutation rates are expected on railroads.

A. J. COOK, *Pres*,
T. F. BINGHAM, *Sec*.

SELECTIONS FROM OUR LETTER BOX

A Good Honey Crop.—This has been a good season for honey. I commenced the season with 12 colonies, and increased to 26, taking 2,400 lbs. of extracted and 576 lbs. of box honey, in all 2,976 lbs., being an average of 248 lbs., and they have plenty to winter on. I wintered my bees in the cellar last winter, and lost but 1 colony out of 13; the others were strong. I think the cellar is the best place to winter bees. I have all hybrids now; I had two Italian queens last spring, but they were lost in swarming. I like Italians best, and shall try them again.
H. J. SMITH.
Burlington, Wis., Oct. 27, 1881.

My Method of Wintering.—I have been requested to write my method of wintering bees for the BEE JOURNAL, both by letter and through the JOURNAL. I would gladly do it if I could; it is more work to do it on paper so it could be understood than I can spare at this time. I have been sick for some time, and could not go to the National Convention on that account; I have not yet prepared our bees for winter, and it is now 17 days past the time we usually have it done. I always want it done by the 10th of this month. I do not know when I will be able to write it.
J. S. HILL.
Mt. Healthy, O., Oct. 27, 1881.

Well Enough.—My bees did pretty well this year. Out of 2 colonies left in the spring, I now have 11 by dividing but one, and all in excellent condition. I attribute their good condition to the fact that I fed them all summer with the honey left in the hives by the bees that perished last winter. They yielded about 450 lbs. of comb and 50 lbs. of extracted honey. I sincerely hope the next winter will be more favorable for our pets than the last.
GEO. BISCHOFF.
Burlington, Iowa, Nov. 1, 1881.

Poor Honey Crop.—I see by the report of honey crop for 1881, that you credit Massachusetts with 78 lbs. per colony. I think that you did not get many reports from the eastern part of the State, as I know of several hundred colonies that have not gathered as much as has been necessary to feed in order to get them in condition for winter. I started with about 50 colonies in good condition in June, and would have obtained a good crop if there had been any chance. White clover yielded just enough to encourage breeding. I held them back until after July 4, when my hives were so full of bees that it was impossible to keep them from swarming any longer without considerable trouble, so I let them come. On Aug. 5, 6, I looked them all over and found them heavy with brood and bees, but not much honey, excepting in a few of my black colonies that had been working in surplus boxes. On Sept. 1, many were in a starving condition, and had to be fed. They made a little gain on golden rod, but not enough for winter, and I have fed them about 700 lbs. of honey and sugar, and doubled them down to 80 colonies, which puts them on winter footing. One man tells me he has fed 713 lbs. sugar, and another that he has fed several barrels.
WM. H. GIBBS.
Clinton, Mass., Oct. 29, 1881.

Short Crop.—I am now taking off my crop of honey, and find it quite short, perhaps owing to drouth and unprecedented hot weather. I shall have about 100 lbs. of comb and 200 lbs. of extracted honey, and selling at 20c. per lb. I am much pleased with the BEE JOURNAL as it is, and will perhaps be more so with the improvements of next year.
JACOB EMMONS.
St. George, Kans., Oct. 19, 1881.

Bees on Shares.—I intend to put my bees in the cellar for wintering. The cellar is a good one, but is under the kitchen, consequently there will be plenty of noise above them, but no jarring. 1. Will the noise injure the bees? 2. Suppose I sould purchase 10 or more good Italian colonies in the spring, and give them out on shares, what would be a fair divide in the fall of honey and bees? 3. In rearing queens in nuclei, can more than one at a time be reared; if so, how are they kept till sold or wanted for your own use? Please answer in the BEE JOURNAL.
JOHN YODER.
Springfield, Ont., Oct. 12, 1881.

[1. The noise will not injure them if there is no sudden jarring.

2. It is the custom, we believe, in running bees on shares, for A to furnish the stock of bees, and stand one-half the expense for additional hives, sections, foundation, etc. B performs all the labor, boards the help, buys one-half the new hives, sections, etc., and does all the nailing. When the division takes place, A receives the same number of colonies originally furnished, with one-half the increase, honey, and accumulated property for which he has helped to pay. This answer applies also to the queries of Dickson Bros., Lancaster, Ont.

3. You can only rear one queen at a time in a nucleus, and she should be kept in the nucleus until wanted. The nucleus should be enlarged from time to time as required.—ED.]

Sawdust for Wintering Bees.—My plan will winter bees safely anywhere without loss, and the bees will swarm as early as April. The plan is to bury them in sawdust; set two rows of hives backs to backs, and side by side close as you can get them; let them range in a row from north-north-east to south-south-west, so as to give both sides an equal share of the sun. It is 9 o'clock before it gets warm enough for bees to fly; three hives can front to the south, but none toward the north; then have a tight board wall all around, and expose the entrance of every hive below to give the bees a chance to fly at will; fix them away before they suffer with cold; leaves and earth will do where sawdust cannot be had. The sawdust can be damp but must not be wet. Cram the sawdust as tight as you can get it; the thickness of the wall should depend upon the latitude you live in. The sawdust is generally of such a warm nature that it will heat toward spring, and if not, take it all out in the spring at the time you want them to commence rearing brood, and put a case around the sides of the hives, leaving only one inch space between the case and the hives, in this space put wheat bran, and the sawdust in the large space; moisten all slightly, and cram it as tight as you can get it, then draw out the case so the sawdust and bran will connect; then put bran on the top of the hives one inch thick, and all the sawdust over them again; tramp it tight, and cover well to keep out the rain. Spouts can be put through the sawdust to connect with a feeder, to feed early in spring. Leave them in till frosts are past, so as not to chill the brood, and I will insure your bees will come out three times as strong, and you will winter bees no other way as long as you live.
CHARLES J. LOHMANN.
Cameron, Mo., Oct. 28, 1881.

A Light Yield.—I have now 40 colonies all told; I had 30 in the spring; have not taken any honey from the new colonies, while the old ones will average about 39 lbs. Honey is about all sold in this county. I have an order now for 500 lbs. from one hotel in this town, and have all sold out.
GEO. A. RUSS.
Queeche, Vt., Oct. 18, 1881.

Good Honey Season.—The season, just closed, has been a very good one for bee-keepers in this section. The spring opened late, but very fine. The soft maple yielding better than usual, and the weather was so fine that the bees could work nearly every day it was in bloom; the wild willows also yielded well, and were followed by the white willow which yielded unusually well, so much so, that my strongest colonies filled and capped over combs in the brood department with honey from this alone. The queens, determined not to be outdone, filled the combs with eggs very fast, and our colonies were soon very strong. Gooseberries, currants, plums, cherries and apples followed—raspberries yielded well. These were next followed by white clover bloom which lasted nearly 2 months, giving a magnificient yield. Basswood yielded honey for only about one week, falling short of its usual yield by more than 50 per cent. The drouth commenced early in July, yet buckwheat and wild flowers yielded well, so that the bees kept breeding and storing a surplus up to the close of the drouth. Showers early in September, brightened the honey yielding flowers, so that the bees stored more liberally until the night of Oct. 18, at which time we had our first frost. Our number of colonies now stand 8 to 1 in the spring. Our surplus is over 50 lbs. per colony at the opening of the honey season. Our bees close the season very strong in numbers and with good supply of well-ripened honey. I can see no reason why they should not winter well, if properly cared for, by being protected from a cold winter, should one follow. Brother bee-keepers! Our bees have done nobly for us this season. Let us do our best to make them comfortable during winter. Successful wintering means nothing less than successful bee-keeping. It is so with me at least.
F. A. SNELL.
Milledgeville, Ill., Oct. 31, 1881.

Honey from Golden Honey Plant.—In arranging my hives for winter, I found two full boxes of honey on one that was made from the golden honey plant, the balance made from it by the other colonies was sold some time since. The boxes were put on about Aug. 10, and the honey will be found nearly or quite pure. It is so peculiar in its flavor, and possesses other characteristics so different from any other kind of honey that I have tasted, that I have concluded to express a box to you that you may try it and give your opinion of it to the readers of the BEE JOURNAL. The box having been on the hive some time is somewhat soiled, but it will give you an idea of its taste. Watts' Chemistry, vol. 3, page 165, says: "The honey of the common bee contains cane sugar, inverted sugar, and an excess of dextro-glucose. The proportion of cane sugar varies with the age of the honey, as it is gradually converted into inverted sugar by the action of a ferment contained in the honey." I do not know that there has ever been a test of the different kinds of honey, to determine the relative quantity of cane sugar they may contain, but I should judge, from the taste, that the honey gathered from the golden honey plant contains a larger percentage of cane sugar than either white clover or basswood honey. There is another point in this connection, and that is, that the kind of honey containing the largest percentage of cane sugar may prove the best to winter bees upon.
G. L. TINKER, M. D.
New Philadelphia, O., Oct. 28, 1881.

[The sample section mentioned arrived in a dilapidated condition. The honey is of an amber color, and possesses a peculiar, rich, aromatic flavor.—ED.]

Just Splendid Report.—I had 5 colonies in the spring; lost none last winter; have increased to 26 colonies and obtained 1,100 lbs. of honey, 400 pounds of it being comb in 1-lb. sections.
I. G. TAYLOR.
Austin, Tex., Oct. 31, 1881.

What Killed Her?—Some six weeks ago I received a two-frame nucleus, with a three-dollar queen in it. I put them in a hive; all was lovely; bees worked, reared brood, carried honey, etc. A few days ago, as I came to the hive, my choice queen was lying about two feet from it, in company with a yellow-jacket. I drove away the yellow-jacket, but my queen was dead. I was in the habit of feeding on top of the frames; is it possible that a yellow-jacket got into the hive and killed the queen, while the hive was open? The queen had some milky liquid on her head and body, and I think had lost her sting. Answer through the BEE JOURNAL.
J. H. KOOKER.
Winterburn, Pa.

[We do not think the yellow-jacket killed the queen; and if it had, it did not carry her out. The yellow-jacket was probably attracted to the dead queen outside by the sense of smell. If you look through the bees carefully you may find the mystery explained by the presence of another queen, which has killed your pet.—ED.]

Prepared for Winter.—On the 10th inst. I weighted my 21 hives; they showed 11 to 18½ lbs. each of bees and honey, and on the 24th I wrapped rags on top and between the division boards, and left them on the summer stands to remain during the coming winter. I have 5 colonies of Italians, 2 of Syrians and 14 of blacks; 5 of their queens are old, but I hope they will keep their families together till spring, when I will supersede them. The drouth was broken up here on the 30th Sept., by heavy rain, which has continued at intervals ever since until the last 3 days, making the creeks and lowlands all overflow. The destruction to corn, hay and other property will amount to many thousands of dollars in this part of the country. We have had no frost yet to hurt anything. The heavy rains ruined the late bee pasturage, although the buckwheat is now blooming, and to-day is clear and warm, at 82°. Bees are working on the buckwheat, and the disgusted farmers are sowing and harrowing in the winter wheat crop in a hurry, to beat the next shower. The young white clover is booming for next year's crop here. I have sown two acres of melilot clover, and half an acre of golden honey plant.
R. M. OSBORN.
Kane, Ill., Oct. 26, 1881.

Bees Starved.—I have 10 colonies of bees; they were very weak in the spring, and have not gathered enough to keep them. I fed them in July and August, and Sept. 20th three colonies left their hives and went away. I then examined the hives; they were full of combs, but no honey. The bees were starved out. I then commenced feeding what were left. They are doing well now, and if the weather keeps fine for a few days longer, they will probably have a winter's supply. The weather was very dry here, we being 44 days without rain. This is my first year at bee-keeping, and I have learned several lessons so far—some that I will not forget. I find that I have many more to learn. I wish the AMERICAN BEE JOURNAL much success.
JOHN C. BURNS.
Terre Haute, Ind., Oct. 25, 1881.

CLUBBING LIST FOR 1882.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1882, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage is prepaid by the publishers.

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T.G.Newman)	$2 00..	
and Gleanings in Bee-Culture (A.I.Root)	3 00..	2 75
Bee-Keepers' Magazine (A.J.King).	3 00..	2 60
Bee-Keepers' Instructor (W.Thomas)	2 50..	2 35
The 4 above-named papers.......	4 50..	4 00
Bee-Keepers' Exchange (J.H.Nellis)	3 00..	2 75
Bee-Keepers' Guide (A.G.Hill)......	2 50..	2 35
Kansas Bee-Keeper.......	2 30..	2 15
The 7 above-named papers.......	6 30..	5 50
Prof. Cook's Manual (bound in cloth)	3 25..	3 00
Bees and Honey, (T. G. Newman) ..	2 40..	2 25
Binder for Weekly, 1881..................	2 85..	2 75
Binder for Weekly for 1882	2 65..	2 50

Special Notices.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

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Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

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Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

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☞ Articles for publication must be written on a separate piece of paper from items of business.

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Photographs of prominent Apiarists —Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

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☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

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☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

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An Agreeable Dressing for the Hair, that will stop its falling, has been long sought for. Parker's Hair Balsam, distinguished for its purity, fully supplies this want. 44w4

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A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆ ◆ ◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

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Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. It will pay to devote a few hours to the BEE JOURNAL.

◆ ◆ ◆

Women are Everywhere Using and recommending Parker's Ginger Tonic, because they have learned from experience that it speedily overcomes despondency, indigestion, pain or weakness in the back and kidneys, and other troubles peculiar to the sex.—*Home Journal.* See adv. 44w4

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☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆ ◆ ◆

Why suffer such unspeakable tortures? Rheumatism has been conquered. Kendall's Spavin Cure is the victor. See advertisement. 44

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☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL,
Monday, 10 a. m., Nov. 7, 1881.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. We quote light comb honey, in single comb boxes, 18@21c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@22c.

AL. H. NEWMAN, 972 W. Madison St.

NEW YORK.

HONEY—The supply is full, and trade is lively. We quote as follows: White comb, in small boxes, 18@22c; dark, in small boxes, 15@17c. Extracted, white, 10@11c.; dark, 7@9c.

BEESWAX.—Prime quality, 21½@23c.

THORN & CO., 11 and 13 Devoe avenue.

ST. LOUIS.

HONEY.—Steady. Comb 18@20c, strained, and extracted, 9@12½c.—top figures for choice bright in fancy packages. On Tuesday was effected the remarkably large sale of 9,000 lbs. strained and extracted (in bbls.) at 9c.

BEESWAX—Selling lightly at 19@20c.

R. C. GREER & CO., 117 N. Main Street.

CINCINNATI.

HONEY—Is in good demand here now.

I quote: Good comb honey, in sections, is worth 18@20c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

BOSTON.

HONEY.—1-pound combs are a desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 21@22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX — Best light 23@25c.—*Philadelphia Merchants' Guide.*

CLEVELAND.

HONEY—We report the market quite active; all our sales this week of comb honey in 1 pound sections have been made at 22c., and two pound sections at 20c. Extracted has taken a start, and we report trade quite active in small packages, 30-pound tin cans, especially, at 12c. per lb. Extracted in bbls. continues dull

BEESWAX—20@22c.

A. C. KENDEL, 115 Ontario Street.

SAN FRANCISCO.

HONEY—Retail sales are being made within range of quotations. Wholesale buyers give offerings little or no attention.

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 9@10c.; dark and candied, 7@8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.

Dec. 8—Michigan State, at Battle Creek, Mich.
T. F. Bingham, Sec., Abronia, Mich.

1882.

Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Benn, Sec., McGrawville, N. Y.

25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.

April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.

25—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.

May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

◆ ◆ ◆

☞ Subscriptions may commence with the first number of any month in the year.

◆ ◆ ◆

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums. Their own subscription may count in the club:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

Or they deduct 10 per cent in cash for their labor in getting up the club.

Advertisements.

THE AMERICAN BEE JOURNAL is the oldest Bee Paper in America, and has a large circulation in every State, Territory and Province, among farmers, mechanics, professional and business men, and is, therefore, the best advertising medium.

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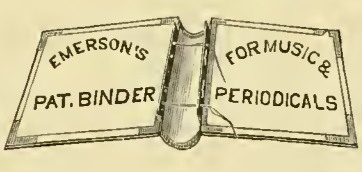

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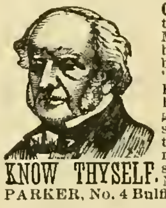

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OR,
MANUAL OF THE APIARY,
By A. J. COOK,
Of Lansing, Professor of Entomology in the
State Agricultural College of Michigan.

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320 Pages; 133 Fine Illustrations.

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This is a new edition of Prof. Cook's Manual of the Apiary, enlarged and elegantly illustrated. The first edition of 3,000 copies was exhausted in about 18 months — a sale unprecedented in the annals of bee-culture. This new work has been produced with great care, patient study and persistent research. It comprises a full delineation of the anatomy and physiology of the honey bee, illustrated with many costly wood engravings — the products of the Honey Bee; the races of bees; full desceriptions of honey-producing plants, trees, shrubs, etc., splendidly illustrated—and last, though not least, detailed instructions for the various manipulations necessary in the apiary.

This work is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. It is fully "up with the times" on every conceivable subject that can interest the apiarist. It is not only instructive, but intensely interesting and thoroughly practical.

—:o:—

Read the following opinions of the Book;

All agree that it is the work of a master and of real value.—*L'Apiculture,* Paris.

I think Cook's Manual is the best of our American works.—LEWIS T. COLBY.

It appears to have cut the ground from under future book-makers.—*British Bee Journal.*

Prof. Cook's valuable Manual has been my constant guide in my operations and successful management of the apiary.—J. P. WEST.

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This book is just what everyone interested in bees ought to have, and which, no one who obtains it, will ever regret having purchased.—*Mich. Far.*

Is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without.—*Nebraska Farmer.*

To all who wish to engage in bee-culture, a manual is a necessity. Prof. Cook's Manual is an exhaustive work.—*Herald,* Monticello, Ill.

With Cook's Manual I am more than pleased. It is fully up with the times in every particular. The richest reward awaits its author.—A. E. WENZEL.

My success has been so great as to almost astonish myself, and much of it is due to the clear, disinterested information contained in Cook's Manual.—WM. VAN ANTWERP, M. D.

It is the latest book on the bee, and treats of both the bee and hives, with their implements. It is of value to all bee-raisers.—*Ky. Live Stock Record.*

It is a credit to the author as well the publisher. I have never yet met with a work, either French or foreign, which I like so much.—L'ABBE DU BOIS, editor of the *Bulletin D' Apiculteur,* France.

It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat,* Pulaski, N. Y.

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—‡o‡—

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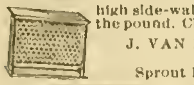

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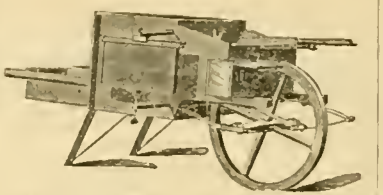

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VOL. XVII. CHICAGO, ILL., NOVEMBER 16, 1881. No. 46.

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Novice and Glucose.

Mr. A. I. Root copied the following item into *Gleanings* for November, page 530, from the Bee Journal of Oct. 26, page 337:

> To prohibit the use of glucose by law would be about as proper as to compel hotel-keepers to use first-class meat in hash, or cheap boarding-house keepers to debilitate the butter. If persons wish to buy and eat glucose, they have a right to do so; we would throw no obstacle in the way of buying it. But we do object to their buying and eating it for pure honey and syrup, or anything except what it really is. If buyers inquire for glucose, let them have it; if for honey, sell them honey.

Whereupon he remarks editorially as follows:

"Now, if that is not exactly where I have always stood in the matter, it must be I do not see things straight. It looks to me just as if friend Newman had come over to my position; but very likely it seems to him I have gone over to his side. Never mind, so long as we are agreed."

It is very certain that Mr. Root does *not* "see things straight," as he terms it. The Bee Journal has been very outspoken in regard to adulteration, and has strongly condemned the use of glucose not only for adulterating honey, but also for feeding bees, while *Gleanings* has not only advocated its use for feeding bees, and sold it, by tons, for that and any other purpose the buyers wished to use it, but Mr. Root has aided adulterators by avowing that it was a "pure sweet," "not bad confectionery," that it was "excellent food," and that "basswood or clover honey" would be "improved for table use by being mixed with the first quality of glucose!"

Can it be *possible* that Mr. Root can honestly think, even for a moment, that the Bee Journal has "come over to my position," as he states in the last number of *Gleanings?* The idea is simply infamous!

We have no desire to color his language, nor misrepresent his views, and will therefore give the following extracts from *Gleanings*, in proof of the assertions we have made. Mr. A. I. Root says:

"It seems as if the Buffalo factory improved on every ton of sugar (glucose) they send us. It is now so white and of such a *pure* sweet that it is not bad confectionery, just as it is broken out of the barrels. Both in appearance and taste, it is slowly but surely coming nearer and nearer to very white pure candied honey. If the flavor of basswood or clover honey were added to it, and its candying property corrected a little, it would be almost, if not quite, honey made from Indian corn."—*Gleanings for March*, 1880, *page* 118.

Speaking of a jar with a small piece of comb honey inserted in liquid (mostly glucose) sent him as a specimen of adulterated honey, he says:

"If I had purchased the honey, I am *sure* I should have been well satisfied with it, although the contents of the comb were different from the liquid portion, and none of it was crystallized. This was by no means a proof that all was not pure honey, but *whether it was or not* I should pronounce it *both good and wholesome.* A pure article of glucose is *excellent food*, and we should like it just as well as honey, did it not lack the flavor of the flowers!" He then adds: "I really think strong basswood honey is improved for table use by being mixed with the first quality of glucose. It is, I am sure, *just as wholesome as honey.*"—*Gleanings for April*, 1878, *page* 110.

Of the adulterated honey Mr. Root says: "I am sure it is just as wholesome as honey." Can he point to a single sentence in the Bee Journal that can be so construed as to give the idea that in such a sentiment "we are agreed?" If not, then he has done us a very serious injustice to say that we are agreed, unless *he* is ready to repudiate his own language.

He still further asserts that he has been eating it for months, aye, years, and here is the proof:

"The light yellow grape sugar that we have been using, I find almost as pleasant as maple sugar, and I have eaten it freely for months."—*Gleanings for March*, 1878, *page* 87.

"I feel just as safe in feeding it (grape sugar) or eating it myself, as I would in eating the corn meal from which it is made."—*Gleanings for Nov.*, 1878, *page* 365.

And in his catalogue of supplies for the apiary, on page 14, he says:

"I know that the Davenport grape sugar is good and wholesome, for I have used it for years."

Has the Bee Journal ever said that glucose or grape sugar was "just as GOOD as honey," for any purpose? Certainly not; but Mr. Root, editor of *Gleanings* has said so, and, therefore, we are *not* agreed, unless Mr. Root has changed his views! He says:

"For comb building, brood and queen rearing, during a dearth of honey, it is an excellent and cheap substitute for either honey or sugar." In the same article he says: "So far as I know" it is "just as good as honey."—*Gleanings for Nov.*, 1878, *page* 372.

As still another proof that Mr. Root does "not see things straight," he contradicts himself point blank by saying that "grape sugar cannot be used for adulterating honey." This is his language:

"I do not think it (grape sugar) could ever be used to adulterate honey without utterly ruining it for table use."—*Gleanings for March*, 1878, *page* 87.

"I have favored the use of grape sugar for feeding bees, and nothing more. I have done this with the understanding that grape sugar cannot be used for adulterating honey; its bitter taste would render this impossible, aside from its invariable habit of hardening in the cells almost immediately after it is fed to the bees."—*Gleanings for Feb.*, 1879, *page* 41.

In the last paragraph he again contradicts himself. He has said he has been eating it, and knows it is "good and wholesome," that honey would be improved by being mixed with grape sugar, and that the adulterated honey was "both good and wholesome," and now in the last paragraphs quoted he says that "grape sugar cannot be used for adulterating honey," and that he has "favored the use of grape sugar for feeding bees and nothing more!"

If a witness in court should thus contradict his testimony, he would be committed for perjury or be adjudged insane, and his evidence be ignored by the jury; but of course we shall not say such an unkind thing of Mr. Root.

It will be remembered that Messrs. Dadant and Muth, in several articles in the Bee Journal for 1878, very severely criticised Mr. Root's position on glucose, and Mr. Root replied in the following language:

"Our friend Dadant is doubtless sincere in what he says of grape sugar, but, for all that, I think him very much mistaken. I have eaten it in large quantities just as I would maple sugar, and have fed it to our bees for over a year, without a single bad feature showing itself, so far as I know. It has been used largely all over our land, and is now quite an article of commerce. I do not know what kind of grape sugar they used in France, but I am sure that that made by the Davenport Glucose Co. is wholesome and free from the impurities mentioned....No doubt friends Dadant, Muth and, perhaps, Newman too, are sincere. I cheerfully forgive them all."—*Gleanings for Oct.*, 1878, *page* 326.

In the Bee Journal for July 13, the Rev. L. L. Langstroth gave a masterly rebuke to Mr. Root for advising the use of grape sugar for feeding bees, and for winter stores, showing that it was certain *death* to them. This convincing argument caused Mr. Root to confess as follows:

"The first experiment I ever made with it (grape sugar) for wintering, caused the death of two colonies..... They did not have the dysentery, but simply starved on heavy combs of solid grape sugar."

Mr. Root then agreed to discontinue his advice to use it for wintering purposes, and it is very generous in him to forgive us all for our efforts to convert him—but it is exceedingly ungenerous for him now to say that we have "come over" to his "position."

Here is a matter that concerns every bee-keeper. Mr. Root makes the following libellous assertion:

"Grape sugar is now almost as staple an article with bee-keepers as foundation."—*Gleanings for May*, 1880, *page* 230.

Staple for what? It cannot be for feeding, because Mr. Root says his bees "simply starved on heavy combs of solid grape sugar." But one inference can be drawn by the general public, and that is that bee-keepers have been persuaded by the reckless assertions that grape sugar is "pure," "wholesome," "a pure sweet," "just as good as honey," and that "basswood honey is improved for table use by being mixed with the first quality of grape sugar," and "just as wholesome as honey." Can it be wondered at, that Mr. Root's own words are frequently quoted by glucose peddlers, to establish a prejudice against honest bee-keepers? Is it a matter of surprise, that the uneducated consumers always regard extracted honey with suspicion? Who is most guilty, the bee-keeper and vender who have been tempted to "improve for table use," or him whose writings teach by implication that it is not wrong to defraud the honest consumer? Do not the above extracts explain why the commercial value of pure extracted honey is quoted at 8@9c., while the same article in the comb sells for more than double? Why is it that in Europe prices are nearly equal, unless because such immoral counsels have not been impressed upon the public mind?

Never have we counseled the sale or use of glucose for any purpose whatever, neither directly nor by implication; but, on the contrary, our protests against its use have been frequent and unqualified. We have sacrificed self-interest in our opposition to adulterations, and suffered much censure, but the most grievons injury we have yet received was from Mr. A. I. Root, who, with his grape sugar record before the public, unretracted, says "we are agreed."

The Queen-Breeders of Italy.

On another page a correspondent remarks as follows:

> "I confidently expect to find that 'coming bee' by following this very strain (his own breed of bees); at least I have more confidence than in sending to Italy for a queen to breed from that was reared by an ignorant peasant for no other purpose than to sell."

While we believe that America will produce the "bee of the future," we emphatically dissent from the assertion that the queen-breeders of Italy are ignorant peasants. From personal observation, and intercourse with them by letter and otherwise, we know that they are intelligent apiarists. The main reason why we cannot expect the Italians to produce "the coming bee" is because they are more ease-loving than pains-taking; and are too much wedded to old-fogy notions, to accept the progressive ideas of our day. Many of them, however, realize the necessity of progression, and are doing all they can to impress these ideas upon all. Italian queen-breeders are by no means ignorant.

Controversial.—As we take our last look over this JOURNAL before closing the forms, we notice that it is quite controversial. We have a debate with Novice; James Heddon with E. L. Briggs; W. F. Clarke with James Heddon, and E. A. Thomas with G. M. Doolittle. This is the way to bring out the truth on every subject. To exchange error for truth should be our constant aim. In order to arrive at and settle down upon correct principles, we must debate every inch of the ground. The one who advocated the unsound philosophy is as much benefited by the general result as the one who comes off victorious. This is a good motto: "First pure, then peaceable."

Fragrant.—Mr. Julius Tomlinson, of Allegan, Mich., has sent us under date of November 10th, a very fragrant little bouquet of sweet clover blossoms. He writes: "My bees were bringing in pollen later than the 1st."

☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

Vennor's Weather Predictions.

We have received a copy of Vennor's Weather Almanac for 1882. It is replete with valuable information in addition to the predictions for the different months for next year, and is sold at the low price of 25 cents. It contains 82 pages. We copy the predictions for the last two months of the present year. They are as follows:

> November, 1881, will probably enter cold and decidedly wet, bot this condition will suddenly, after the first week, give place to open and genial weather again nearly everywhere, with a disappearance of frosts even in Northern New York and Canada for a marked period. We may expect some of the finest—at any rate, most enjoyable—weather of the season during this month at New York, Boston, Philadelphia and Washington, and in Canada our "Indian summer." In western sections the fore and latter portions of the month are likely to be disagreeable, but I do not anticipate much trouble from snowfalls or blockades this winter until December. Should such occur, however, it will likely be found that the dates of the disturbances will be very nearly the same as those of the November of 1880. Possibly there may be a period of unusual warmth in proximity to the middle of the month.
>
> There will be late fall-ploughing in Western Canada and in the North-west, but in the last week of November a sudden and very severe fall of temperature will occur generally through Canada, with but little snow, if any, on the ground.
>
> This month will be marked by periods of balmy and brilliant autumn weather, as in the year 1877.
>
> December, 1881, I hardly like the look of this month, viewed from the present standpoint (Sept. 18). It "looks ugly," and smacks of cold, bitter, biting cold, north and south, east and west, with but sparsely snow-covered ground in Northorn New York and Canada, and bare ground west and south. The month bids fair to be cold and dry, rather than otherwise, and this cold may be somewhat proportionate to the heat of the past summer, and extend to extreme southern and western points. The entry of the month is likely to bring in winter abruptly in most sections where winter is usually expected and experienced. The first week of the month will probably give the first good snow falls of the season in New York, Canada, and westward, with considerable bluster, while cold, stormy, and wet weather will be experienced in southern localities. Snowfalls will again occur about the middle of the month in Canada and the Northern United States, and during the last few days of the month, again, as far south as Washington, D. C., where it is probable the new year will enter with fair sleighing for a brief period. These snowfalls, however, are not likely to be as marked and severe as those of the past winter; but, as I have already stated, the "cold dips" look formidable in most sections.
>
> My general impressions respecting the winter of 1881-82 at the present time (Sept. 25) point to some very open and balmy periods of considerable duration toward midwinter; early and intense cold at the setting-in of the season, and again toward and in March; a rather backward and wet spring, and cool, wet summer, with but few very hot periods.

☞ One of the latest caprices of of Madam Fashion is a bee composed of diamonds, finely contrasting with a pink pearl which forms the body, seated on a pearl-headed pin, and is the latest design for a lace brooch, so says a Journal of Fashion.

☞ Who will take an Apiary Record Book, if we get some of them up.

☞ We are sometimes asked who our authorized agents are? Every subscriber is such an agent; we have no others, and greatly desire that each one would at least send in one new subscriber with his own renewal for 1882. The next few weeks are the time to do this. We hope every subscriber will do his or her best to double our list for 1882.

☞ Coleman's *Rural World*, of St. Louis, Mo., of Nov. 3, has the advertisement of Mrs. Cotton, and an editorial notice endorsing her [him, we mean.] After all the evidence of fraud that has been given, it is deplorable that agricultural papers should aid in defrauding the public thus for a few paltry dollars.

☞ *New* subscribers for the Weekly BEE JOURNAL, for 1882, will have all the remaining numbers for 1881 *free* from the time the money is received at this office. Therefore, the sooner they subscribe for it, the *more* they will obtain for the $2.

☞ Subscriptions may commence with the first number of any month in the year.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Good Fall Crop of Honey.—The *Indiana Farmer* says:

> Mr. J. Hole, Butlerville, Ind., writes us that this has been one of the best seasons for fall honey that they have had for several years, principally from golden rod and asters, making it necessary to extract from the body of the hives to give the queens room in which to lay. We have received other reports of like character from several different localities, all going to show that the yield is quite general, making the prospect for safe wintering very fair.

Well Turned.—The Daily *Argus*, of Middletown, N. Y., remarks as follows:

> Scientific bee-culture has taken a firm hold up the Midland. The bee-keeper who now kills his bees to get the honey is twin brother to the man who kills a hen to get her eggs. I was going to write an article on apiculture when I began this, but perhaps the best thing I can do is to advise all of my readers who are in anyway interested in bees or honey, to send postal card for sample copy of the AMERICAN BEE JOURNAL, Chicago, Ill. They will find it a live paper on the bee, and its editor as fine a fellow as ever handled a pen.

Bees in Navarro County, Texas.—B. F. Carroll, Dresden, Texas, in the Texas Agricultural *Journal*, thus describes the season for honey:

> The year 1881 will long be remembered, first, by the unusual severity of the winter; 2d, by the terrible freeze on the 14th day of April, that destroyed nearly every green vestige; 3d, by the strange phenomena of the heavenly planets and the many comets; 4th, by the most destructive drouth that has visited Texas since 1857. On the 19th of May we had a good rain, and since that time we have not had over one and a quarter inches of rain, and this has fallen during September and October—nearly five months without rain, and the dry weather continues. After all this dry weather, the bee-keepers of old Navarro have done very well. Many of us have gathered over 100 pounds of extracted honey per old colony, and our bees are now booming. The cool nights have started the cotton plant to growing, and it is now blooming nicely, and furnishes, during September and October, an excellent quantity and quality of honey, and with the aid of broom-weed and goldenrod, our bees are destined to go into winter quarters in excellent trim, and give us some surplus. They are 50 per cent. better off now than last year at this time. The increase of bees by natural swarming during this year did not exceed 10 per cent. By the aid of comb foundation, I increased my stock over 100 per cent., and sold at least 25 per cent. more in early queens and full colonies.

Avoid Bee-Murder.—The *Grange Bulletin* records its views of killing bees by neglect, in these words:

> The preparation of bees for winter should now be the study of all conscientious bee-keepers. If not yet decided as to how to prepare them, read up at once. Apply the knowledge gained to practice, and be prompt in making all necessary arrangements; for no man deserves the name of bee-keeper, or should attempt to keep bees, who has not resolved with all sincerity to avoid bee-murder. Cool nights have a tendency to retard brood rearing, consequently some assistance should be given to enable the bees to keep as warm as possible. A quilt or blanket is very beneficial to the bees spread over the frames. It is immaterial of what they are made. Pieces of carpet, anything will do that will keep in the heat and absorb the moisture arising from the bees.

Curiosities of Bee-Stings.—Prof. A. J. Cook, in the New York *Tribune* on this subject, remarks as follows:

> What has not been recommended as a specific against bee-stings? Clay wet with spittle, various acids, the expressed juice of certain plants, etc. The last is the following from the Scientific *News:* First remove the sting as soon as possible with a forceps, or by scratching with the finger nail, but never between the thumb and forefinger, because this squeezes more of the poison into the wound. Next squeeze the wound till a drop of blood comes out, and then rub the place with a solution of salicylic acid. A trial of the above proves that it is, like most of the others, without effect. The active principle of bee-stings is formic acid, so we would suppose that an alkali would be the best remedy. Nor are we wrong, as ammonia applied to the part after the removal of the sting, as described above, is probably the best application that can be used. A curious fact connected with bee-stings is familiar to all bee-keepers. It is that sometimes a sting is much more painful than at other times. Usually, a sting affects me so slightly that I do not mind it at all. Occasionally, however, it is very painful, swells badly, and is followed by lameness for 2 or 3 days. Whether this peculiarity follows from the variable amount of poison injected at different times, or to the greater susceptibility of some portions of the body to the poison, I am not able to say; but this fact, and the readiness with which some people generalize from a single observation, accounts for the multitudinous remedies for bee-stings which appear in the papers, the most, of which, are worthless. It is a curious fact that the receiving of frequent stings seems to innoculate the person so that the stings lose their power to produce harm. I have not only proved this to be true in my own case, but I see it illustrated in my students every summer.

CORRESPONDENCE

For the American Bee Journal.

That "Coming Bee."

JAMES HEDDON.

So much has been said *pro et con* in regard to the Cyprian bee, lately, that many of us are led to wonder what part she is going to play in the make-up of the "coming bee." Now, I have never seen a Cyprian, but have conversed with those who have, and have read the reports of numerous tests made with them. I suppose that the conflicting accounts regarding their ferocity must be settled in our minds in some way. It is about settled in mine now.

I have noticed that those who always import the genuine, and those who have purchased from them, agree that they sting through boots and all. These bees look so much like the Italian, that I have no doubt but that the bees of those who "find the Cyprians very gentle," are simply Italians, and not the pure belligerents. This is the only way that I can account for the very different reports handed to us out-siders.

I hardly think that any more than the best Italians and blacks are needed to produce the coming bee. While I have full faith in such a production, I hardly think it will be done all in a minute, or by one, two or three men alone. I think it will be the aggregated labors of a number of Americans. It will be a growth—evolution, hastened and guided by the hand of intelligence. I cannot refrain from penning a smile at the late prize effort made by the Rev. E. L. Briggs, of Iowa. While I sympathize with the end in view, I must say that the method he employs to reach it is not at all the one I follow, advocate or believe in. I will explain. First, let us consider the four points of excellence that Mr. B. makes the test:

1st. "The largest in size herself, and producing the largest worker progeny." I have seen small queens that produced large, gentle and industrious bees, and such queens should not be ranked as second class.

2d. "Producing the brightest colored workers." The experience of the most extensive importers and honey producers, is that the dark Italians are superior to the bright ones.

3d. "Her progeny being the most peaceable in handling, and adhering to the combs the closest." We agree exactly about the peaceableness, but I consider the adherence to the combs of minor consideration compared with other points of merit.

4th. "As far as it can be ascertained this fall, the most prolific breeder, and honey-gathering worker offspring." Now in regard to the most prolific breeder. I deem it a great mistake in bee-keepers to cherish and encourage this quality. If a queen cost five dollars, and the hive, combs, etc., only five cents, then prolificness would be of great value; but as just the reverse of this is true, and as it is also true that in the greater profusion a vegetable or animal *produces*, the lower is the quality of the *product*, I find that the most profit lies in using a hive of that size that the very moderately prolific queen always keeps full of brood. Small hives for surplus.

The honey-gathering quality in the offspring is desired by all, but I want two or three years to thoroughly test a strain of bees for this valuable trait. Comb-building capabilities are also of vast importance. So far as I am concerned, I would as soon order a queen of any of the others who sent one to Mr. Briggs, as from Dr. Wilson. It seems to me that when money and time are devoted to tests of qualities, that these tests should be made comprehensive and thorough enough to satisfy the public. "Handsome is that handsome does;" valuable is that valuable proves. Below I give you a test of success in skillful breeding, by quoting from a letter just received by me, from an honest man living in another State. I quote without his consent, and, therefore, withhold the signature:

...."It has been a very dry and hot season; have had a good crop of honey, and of good quality. My crop will average about 200 lbs. of box honey per working colony in the spring; have doubled my number. From one colony in the spring, with no extra chance, I have to-day three new colonies, all good and in the best condition (except about 15 lbs. too much honey in each of the hives); from the old one and increase, 400 lbs. of white honey and 300 dark, all in 2-lb. sections. Another gave 400 lbs. and no increase. I have worked my bees for all they are worth. A large portion of my white honey was from red clover. I have a strain of bees that I commenced breeding from—a hybrid—that worked on red clover five years ago; have bred from the ones that gave the most honey without regard to anything else, and as closely in-and-in as possible. They are improving every year, and have taken as high as 40 lbs. of white comb honey per colony when there was nothing but red clover for them to work on, and colonies of Italians of the "period," full as strong, did not get 1 lb. I confidently expect to find that "coming bee" by following this very strain: at least, I have more confidence than in sending to Italy for a queen to breed from that was reared by an ignorant peasant for no other purpose than to sell. In my opinion, the way our leading breeders are improving, or claiming to improve our bees, is a perfect humbug. I found out years ago, that to rear queens that would satisfy the average customer, I was ruining my stock for honey. I have not reared any for the market for years."....

I believe the above writer commenced the season with about 75 colonies. I have heard that a party who keeps the long, leather-colored Italians, more or less crossed with the German bee, has also had a good season, and has secured an average of 200 lbs. per colony from 150 colonies, getting over 400 lbs. from some of the best, all comb honey in sections. I have not heard from him personally, and did not learn as regards increase.

The above reports, in my judgment, give greater evidence as regards qualities, than do the awards of committees, or the down on the hind legs of the workers. As smoke is the best evidence of fire, so honey is the best evidence of superior bees. My fears in regard to Cyprians are these:

They swarm too much.

They build too many queen cells.

They are too cross.

This cross disposition, coupled with the bee's sharp weapon, is no matter to be made light of. Property, to be valuable, must not only be suited to its peculiar owner, but to the populace at large. That is what constitutes demand; demand makes price. The pursuit would have a very great setback were the dread of the sting to be increased; the popularity of the pursuit would also fall. I fear, as stated by the BEE JOURNAL.

The prolificness, early and late, in this locality, would, one year with another, be of no value, while it would greatly aggravate dysentery. The bees we have breed too long, leaving off not earlier than the middle of October, and beginning as early as February 1st.

Note this: The Italians were brought to us as an improvement over the Germans. To cross these imports with domestics was to contaminate them. Now, the Cyprians are brought in the same light as were the Italians, and they become improved at once by a cross with those they were calculated to supersede. How is it? I have but one desire in regard to them, and that is, that none of my neighboring apiarists will bring any of them into this community till better reports come from them.

Dowagiac, Mich., Oct. 1, 1881.

For the American Bee Journal.

Bees and Honey in California.

WM. MUTH-RASMUSSEN.

From the AMERICAN BEE JOURNAL of Oct. 12, received a few days ago, I learn that at the 12th Convention of the North American Bee-Keepers' Society, held in Lexington, Ky., in the beginning of October, I was elected State Vice President for California. Thanking the Convention for the honor conferred upon me, I propose to fulfill to the best of my ability the labor which my office calls for, and hope to contribute my part to make the next Convention as interesting and beneficial as the one just past has been.

Owing no doubt to the almost total failure of the past honey season, I find but a very meagre report from this State, giving a very imperfect idea of the magnitude of the honey interest of California, as about every second year is a failure for honey production here, and it has been thus, since I entered the business 12 years ago. We may hope that the coming season will be one of prosperity for the California bee-keepers, and that at the next Convention we may be able to present a more favorable report than the last.

I am just on the eve of a trip to Los Angeles Co., where I will meet some of the principal honey producers of Southern California. Shall also communicate by letter with the Presidents of the various District and County Associations, and appoint suitable persons to encourage exhibits of honey, etc., at the local fairs, for which purpose I await the pamphlet to be furnished State Vice Presidents.

I have just within the last week completed my extracting, for which reason I could not report in time for your statistical table. I delayed the last extracting as long as possible, as the bees were still getting some honey, but frosty nights set in and it was with some difficulty that I got the honey out of the combs.

The principal honey plant in this locality is Alfalfa, or Lucerne, which here is allowed to go to seed before harvesting, while in the Southern Counties it is cut as soon as it shows bloom. This year, however, it did not yield as much honey as last year.

The valley in which I live lies between the Eastern part of the Sierra Nevada and the Inyo Range. The mountains, on both sides, contain a number of mines, while only a narrow strip of the valley is suitable for farming. Bees are kept to some extent by several farmers, but in the old-fashioned slip-shod way, and my extractor and improved hives have created quite an interest, although as far as I know, thereby it stands. I am the only person in this valley making an exclusive business of bee-keeping. I commenced the season with 24 colonies, have increased them to 53, and taken about 3,500 lbs. extracted honey; 12 or 14 of the colonies were queen-rearing nuclei, from which I did not extract, but they are now good, strong colonies. My bees are nearly all Italians and hybrids.

Independence, Cal., Nov. 1, 1881.

For the American Bee Journal.

The Business of Supply Dealers.

J. V. CALDWELL.

The business of the dealer in supplies for the apiary having never taken its place among the business associations of the day, a few thoughts as to the manner in which it is carried on will, perhaps, be in order.

While reading the advertisements of supply dealers as they appear in the bee periodicals, the thought often comes to my mind "why should men engage in this business carry it on in such utter disregard of the acknowledged laws of trade?"

It being a well-known supposition that all men engage in business for the purpose of making money, unless indeed they be near kinsman to some enthusiastic writers on bee-culture, who tell amateurs in the business how the bees "work for nothing and board themselves."

I cannot force myself to the belief that these dealers are such noble philanthropists as would seem to be the case at first sight. Of course we cannot expect to succeed in having all sell at the same price.

Different locations, in some instances, give one person the advantage in some respects. If a man lives in the midst of a great lumber region, he can afford to sell hives or boxes cheaper than another living in the wilds of Western Kansas, and still have the same profit. But it seems to me there are certain conditions which all might observe, for instance, we know choice queens cannot be raised very cheap without loss to the breeder; queens are sold cheap, but whether or not they are choice is another question. I have sold queens cheap, and have done so at a loss, but in future I shall not be so foolish.

Rev. A. Salisbury says, "none but fools sell dollar queens, himself included," and I guess he hit the nail on the head that time. While people buy queens as we know they do to improve their stock, it seems to me if all responsible breeders would sell only choice tested queens, the bees would be improving from year to year. And again in view of the heavy loss among confiding bee-keepers, every dealer should be compelled to give good and satisfactory references. This is customary among all business men, and if a man cannot give good references he should not expect men to trust their hard-earned dollars in his hands. Finally, let all who are in the business strive to deal honorably with our fellow men, and let our moral character, business habits and standing, be open to the rigid scrutiny of all men.

Cambridge, Ill., Oct. 14, 1881.

For the American Bee Journal.

The Best Out-Door Protection.

E. L. BRIGGS.

To place one's bees in a good cellar, where the temperature is kept uniform at between 40° and 50° is, doubtless, the safest and most economical plan for wintering bees that has yet been devised. But even this mode must be attended with certain precautions, or in many cases disaster will result.

1. They must be put in before frost and dampness gathers in the combs.
2. They must have some kind of upward ventilation, but not enough to create a draft through the hive.
3. The cellar should be kept dark, and be well ventilated from the bottom.

They should be carried in somewhere about the middle of November, and left in stillness and perfect quietude until about the first of April. If, however, they show signs of restlessness, they should be set out on their summer stands for one day, provided, a calm, sunshiny day occurs with the thermometer above 45°; but never if below until such a day occurs. Let this be done in February, if possible.

But, after all, when one's apiary becomes large in numbers, this mode involves much labor. I have experimented to some extent, therefore, on out-door wintering. The following mode I believe will prove a success:

I have set my colonies in rows of 9 each, making the row a little less than 16 feet from one end to the other, say 15 feet 4 inches, doing this in the summer in preparing for winter. Let the hives front the south, and the fly-hole of each hive be 5 inches from the ground; the back end of the hive a couple of inches higher. Take a common fence-board, 6 inches wide and 16 feet long, and place it in front of the row, so as to leave a space 1½ inches in front of each hive, between the board and hive; saw a notch in front of each hive, 3 inches wide and 1 inch deep, for the reception of a tubular entrance, to extend from the fly-hole of the hive to the outside of the fence-board. This winter entrance is easily made of ⅜ lumber—top piece 6x3 inches, sides 6x½ inch, bottom 3 inches wide, and long enough to reach the bottom board of the hive in front. Tack the half-inch strips to the top; next tack on the bottom. This formf a communication from the inside os the hive to the outside, through which the bees can pass at any time when the weather is mild enough for them to fly. A foot plank, 16 feet long, set up on the top of the fence-board above the winter fly-holes, forms the balance of the front of this winter receptacle. Two more such boards forms the back, placed 3 inches away from the back ends of the hives. Nail the front and back at the ends to pieces of scantling; put in end pieces to fit, and nail to the same corner pieces.

You now have a tight box 16 feet long, 18 inches high in front, 2 feet high at the back, and 28½ inches wide in the inside, without a bottom. This rests upon the ground, around the 8 or nine hives, and when the entrances are put in, is to be packed full of chaff in front, rear, underneath, and between the hives, up to and even with the top of the honey-board. Take off the honey-board, and spread over the whole top of the frames a coarse cotton or linen cloth, to keep the bees from flying out when the top chaff-box is removed. Make a frame the exact size of the top of the hive, 2½ inches deep, and tack on the under side the same kind of a cloth for the bottom, and then fill this box with chaff and set it upon the hive, in contact with the other cloth. Fill all the spaces between the top boxes, and the back and front, with chaff also, and the hives are now completely isolated from the weather, except by the tubular fly-holes, which are only ⅜x2 inches, and 6 inches long.

Cover the outside box with any kind of a lid that will keep out the snow and rain, but have it so that the lid can be raised on any sunshiny day, when it is desirable to have the bees fly out for an airing. On such a day raise the lid and prop it up, so that the sun can shine in upon the cloth coverings of the hives in full force. Then lift off the top boxes of chaff, set them in any convenient place to dry out the dampness, and let the sun's rays fall directly upon the cloth coverings above the frames. This will warm up each colony in a few moments, also evaporate all the dampness in a few hours, and give the bees their necessary airing at the same time.

At the approach of nightfall replace the top boxes of chaff, make all snug again by leveling off the chaff, close the lid, and your bees are in good condition for another winter nap of 6 or 8 weeks.

The top chaff box affords all the upward ventilation necessary, while the bees are quiescent in their semi-torpid state; and the long tube will not let sufficient frost enter to accumulate in the combs.

The above is the only chaff casing which I would trust, in as severe a season as last winter. In the place of chaff, one could substitute dry leaves, sawdust, oat hulls, tan-bark or fine chip-manure, or any other substance which is a good non-conductor of heat, and a good absorbent. In case the bees need feeding during winter, put a half inch thickness or more of granulated white sugar upon the cloth immediately over the cluster of bees, set the chaff box over it, and the breath of the bees will slowly dissolve it, and they will suck the syrup through the cloth as they need it, and any surplus will be stored by the bees within reach of the cluster.

In the above outside casing and chaff filling, I have combined all the excellences of the various hives, and means of protection for out-door wintering, that I have ever seen suggested thus far, and at the same time secured the requisite means of disposing of dampness, which accumulates in winter from the breath of the bees. In short, it converts the whole nine into complete frost-proof hives, prevents moldy combs, and secures the requisite heat, so that the colony can reach any part of their stores without being chilled.

The entire cost of such casing, beside the work, will not exceed 33 cents per colony. This is much cheaper than double chaff hives, and ten times as effective as a protection.

Wilton, Iowa, Nov. 8, 1881.

For the American Bee Journal.

Bacteria and Bee-Bread.

WM. F. CLARKE.

I have the greatest respect for Mr. Heddon's opinions, and it is with no small diffidence that I step into the arena to break a friendly controversial lance with so formidable an antagonist. But it seems to me his article on "Pollen Detrimental to Wintering," in the AMERICAN BEE JOURNAL of Sept. 7, is very vulnerable at several points. No doubt the motto placed at the head of the article in question is a true one, and "in our common ignorance all have an equal right to guess;" but until absolute proof is obtained, let us remember that we are only guessing.

This, it seems to me, Mr. H. forgets, for no sooner has he announced his new "guess," than he becomes almost, and then apparently quite certain that he is right. He "stands 10 to 1" in favor of his new theory, and in the course of a few lines, waxing more confident, finds "it comforting to feel satisfied," flatters himself that "a step has been taken up the hill of science," and proceeds to argue on the basis of "allowing this to be the cause." He says: "I have settled down on the belief, strong and positive." Now what proof does Mr. H. furnish in support of his consumption-of-bread theory?

1. That the unaccountable phenomenon of Smith's bees all dying, while Jones' treated the same, and only 3 miles distant, all, or nearly all live, is yet on our hands, and he thinks his new theory will solve it. But he fails to show how it does so. 2. "The preference for honey during all that period when bees must void no excrement, except by sensible or insensible perspiration, is a fixed fact." Variation from that rule, he thinks, is the cause of dysentery. I would ask, is there any period during which bees "void no excrement?" During the period of rest they void very little, but is it not generally conceded that the ridges of dust which fall on the bottom board during winter, consist of dry feces? Probably, when wintered in perfect condition, bees obtain all the relief they need in this way.

L. C. Root, in his new edition of Quinby's Mysteries, page 255, mentions a case of wintering so satisfactorily, that the bees, though imprisoned from Nov. 17 until May 3, voided no feces in a liquid state on being set out. Did those bees wholly abstain from the use of bee-bread? There is no proof of it. It is not that bees void no feces during winter, but that their diet is so wholesome, and they come into a state so nearly dormant, that exercising but little, they eat sparingly and void only a small quantity of excrement, and that in so dry a condition that it does not befoul the hive.

Mr. Heddon's argument based on the assumption that during a certain period "bees must void no excrement" except in the form of perspiration, is without force. They may and do void some excrement, but it is in minute dry particles that accumulate harmlessly on the bottom board. I cannot suppose that Mr. H. considers these minute particles dried drops of perspiration. What huge drops they must be when they ooze out of the body of the bee, if, after evaporation has dried them, they are of the size we find them. 3. The third proof of his new theory is, that he has found no dead colony that had "not either plenty of bee-bread showing signs of late work with it, or brood in all stages, and generally both, but nearly always brood." Observe the qualification in this last sentence. "Nearly always." "What, never? Hardly ever." This is a very weak place in the reasoning. I can understand that it may, and probably does interfere with successful wintering to have brood-rearing carried on too late. It necessitates a good deal of nurse work, and more activity generally than accords with that state of quiescence which we know to be so desirable, but, inasmuch as some colonies died that had no young brood, the argument becomes inconclusive. A chain is no stronger than its weakest link. There is another weak spot in this argument. It is that every dead colony showed signs of having been indulging in bee-bread. I presume they also showed signs of having been eating honey if there was any. Mr. H. assumes what he sets out to prove, viz: That eating bee-bread is detrimental to bees. I, for one, am not convinced of this. They may, from certain causes, have eaten too freely of it, but to assume that bee-bread is poisonous on this account, is as unwarrantable as to conclude that fruit is unwholesome to human beings, because some eat too much of it, and become sick. Moreover, we know that bees in storing cells with pollen, fill them out and seal them with honey. May not a dead colony with plenty of bee-bread showing signs of late work with it—having been doing this kind of work, viz: getting the honey separated from the bee-bread?

I am not quite clear whether Mr. H. considers the use of bee-bread to any extent, however small, injurious to mature bees. I am inclined to think he does, because he says: "Some method of causing the bees to abstain from eating pollen during all that period when they are obliged to semi-hibernate, is what I most desire." Total abstinence from pollen, would seem to be Mr. H.'s new rule for successful wintering. If so, I am constrained to differ from him. I incline to the opinion that as hay, straw and other coarse kinds of food are necessary to the best health of horses and cattle, and as oatmeal porridge, Graham flour and the like are good for man, so there may be a necessity for bees to use a proportion of bee-bread. I am aware that there is a difference of opinion among bee-keepers on this point, some thinking that bee-bread is never used by mature bees, except they are driven to it by impending starvation.

The analysis of pollen would suggest that there may be elements in it that are beneficial to mature bees. It contains nitrogen, carbon, hydrogen and oxygen. Seven per cent. of it is albumen, and there is quite a percentage of fat in it. Honey is no doubt the most refined and concentrated food for bees. The current idea is that they eat nothing else during the height of the working season, though the Scotch verdict, "not proven," attaches to that opinion in my mind. But if in the press of hard work they eat only honey, it may be that their case is like that of a horse when put to his greatest exertion of strength. Then for a short time he may be fed almost wholly on grain, but he must soon return to a partial hay diet, or he will be totally ruined. I cannot prove that bee-bread is a useful and necessary part of the diet of mature bees, but I strongly incline to this view, and see the motto at the head of Mr. H.'s article, "Who shall decide when doctors disagree?" Mr. H. thinks bee-bread the cause of dysentery, while other eminent bee-keepers concur with Mr. Von Morlott, who says that "dysentery does not occur among bees in summer, because they have an abundant supply of pollen, and can fly out at all times." If pollen prevents dysentery in summer, does it cause the disease in winter?

Well, we have got rid of the bacteria. Mr. H. has lifted that mysterious dread from off our minds, and we all feel more comfortable. The "consumption-of-bread theory" is not so terrible an affair as the invisible and impalpable bacteria.

Notwithstanding Mr. H. has "settled down" on his new belief, "strong and positive," I venture to advise him to go slow. I cannot think it would be good policy to eliminate the pollen from our hives next November. It would probably be well to see that our colonies have both honey and white sugar syrup. Possibly, a varied diet is good for bees, as well as for some higher orders of beings. It is ours to see that there are stores. We must leave their consumption to bee-instinct and bee-appetite. Mr. H. seems to fear that bee-bread may sometimes be more attractive to bees than honey. I doubt it. Provide them with both, and if they partake of any bee-bread, I think it will be from some felt necessity. When porridge, beef steak and hot rolls are set before me for breakfast, I feel strongly tempted to give the porridge the go-by, but I know that it is good and necessary for me. Perhaps bees are in this respect as wise as I am; I know that in many directions they are far wiser. I have no doubt bees like honey better than any other article of diet; they always act as if they did. With plenty of honey, if they eat bee-bread, I think it is as I eat porridge, from a sense of duty.

This matter of wintering sorely taxes our best brains. While so much perplexity hangs around it, let us heed John Bunyan's maxim, "to preach only what I know." For all that he is so strong and positive, Mr. H. does not know that pollen, more strictly, bee-bread, is detrimental to wintering. Some careful experimenting will be necessary before we dare launch our apiaries out into winter on this theory. But there are several things we do know. We know that successful wintering depends very much on timely fall preparation. We know that there is a temperature and a quietude which brings bees into a semi-torpor highly conducive to safe wintering. We know the use of the division board in contracting space to the occupying and warming capacity of a colony. There is one point which I am inclined to think is not so well known as it should be, and that is the importance of widening the spaces between the combs in the center of the hive. If the frames are kept their usual distance apart, the bees cannot cluster in sufficient numbers between them to generate the desired amount of heat. Oversight of this has, I believe, caused the death of many colonies. Probably we shall find out by-and-by that the secret of successful wintering does not lie in any new theory, whether of bacteria, bee-bread or anything else, but in a careful conformity to all known conditions. We may keep the whole law except in one point, and that in a particular season, may be the hinge on which the question of success or failure turns. In no pursuit is wide-awake attention to details more necessary than in bee-keeping.

Listowel, Ont., Sept. 9, 1881.

For the American Bee Journal.

Three-Band Test for Italian Bees.

E. A. THOMAS.

On page 285 of the Weekly BEE JOURNAL, Mr. G. M. Doolittle says: "We must conclude that the window test is sufficient, or else that no certain purity exists in the long-continued home of the Italian bee." It seems to me that there is evidence enough to prove that there are black bees in Italy, and if so it may readily be seen that some of the queens imported from Italy may be hybrid; and if hybrid queens have been imported, what is the use of trying to make Italians out of them by applying the window test? It seems to me Mr. Doolittle is getting this matter down a little too fine. Perhaps I take the opposite extreme when I say that bees that will not stand the most severe test, and show the three orange-colored bands distinctly, should be condemned as impure. They are certainly not up to the highest standard of purity.

Again Mr. Doolittle says: "As far as my experience goes, I have yet to see the queen whose progeny show the three yellow bands under all circumstances." As Mr. D. is a man of much experience, this would imply that there are no such bees. I have colonies in my apiary that will show the three yellow bands at any period of life, from the time they get dried off after emerging from the cell, until they are too old to fly. I have also seen such colonies in the apiary of Mr. Theodore James, North Adams, Mass., and I know of several others who have such bees. The bands are not quite so light-colored on the very old bees, still they are there as plain as day. Although I think the age of the bee has something to do with its markings, still I should consider bees that had to be filled with honey and placed on a window in the sun, as impure.

I am surprised to see Mr. D. take the position he has, on account of the effect it will have on those who are not very well acquainted with Italians. Such might be led to believe that bees having black blood in them were all right.

I cannot see how there is any danger of applying too severe a test, and it seems to me that the danger lies more in the opposite extreme. Bee-keepers cannot be too careful in testing queens, and all bees that will require one of Sam Weller's "patent double-million-magnifying gas microscopes of hextry power" to determine whether they are pure or not, should be got rid of as soon as possible, and when such stock is got rid of, we may hope to improve the race.

Coleraine, Mass.

For the American Bee Journal.

How I Winter My Bees.

J. H. ROBERTSON.

To best illustrate my method of wintering bees, we will take hive No. 1, which stands about 4 inches from the ground, the entrance some lower than the back; made from pine lumber ⅞ of an inch thick, 18 inches long, 12 inches deep and 12 inches wide, inside measure. The bottom board projects 4 inches in front, and is securely nailed to bottom of hive; entrance, ½ inch wide and from 6 to 10 inches long. Around the top of the hive less 1 inch is an inch band; cover or top is some larger than outside of hive, resting on band; no paint; the hive contains 8 frames, all worker combs running from entrance to back of hive; over frames is burlaps cover. The comb ranges from 2 sheets of foundation worked out this season to combs 15 to 20 years old. These contain 15 to 25 lbs. of sealed honey, some unsealed, quite a quantity of pollen, and very little, if any, brood. The queen is a pure, vigorous dark Italian, and less than 2 years old. The hive is fairly boiling with young, healthy matured bees, and so full of them that if you lift the corner of the cover they boil over, seemingly pleased to get a little more room.

To insure success, we enforce these conditions on every colony by removing all light and empty frames, crowding the bees on as few combs as they will cover well, using division boards. If but one comb it must be an old one ½ or ⅔ full of sealed honey, and from 4 to 5 holes through it. Place in center of hive with division board on each side, leaving ½ inch space on each side of comb; cover over with burlaps and fill balance of hive with dry sawdust, always using full sized hive for winter.

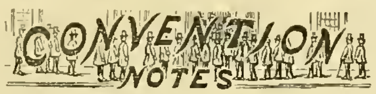
I have in my home yard a half score of rows 10 rods long, about 5x10 feet from center to center of hive, where under my own supervision, every colony will fill these conditions with less than 1 score of division boards in use, and not one ounce of packing of any kind, we are ready for winter. I let them stand out until winter is fairly on us; then carefully remove the top, place a block over the entrance, load 15 or 20 on car and run to bee house door.

The bee house is a frost-proof building, 48 feet long, 10 feet wide and 8 feet high; 6 feet from the entrance is a partition with a door in the center; on each side are two stringers 40 feet long, 6 inches high, securely fastened. Commencing at back end of the room, I place my first hive about 12 inches from the walls, entrance to the center, on top place two pieces of lath cut the right length; on these, our next hive, two more pieces of lath and another hive, and so on until they are 6 feet high, filling up both sides—putting in every colony in the yard—leaving an alley in the center and room to pass all around both rows. After all are in, will guage the entrance with blocks as I think necessary. As soon as possible I will put 6 or 8 tons of ice in the front room, always keeping it well filled and covering the floor with 2 or 3 inches of slowly moving water, the ventilators being so arranged as to keep the air pure, and the thermometer in the neighborhood of 40°, borrowing no troub'e if it occasionally rises to 50° or 60°, leaving them here from 140 to 150 days, requiring all the time, constant and careful attention.

As soon as the weather is favorable, I take them out, not over 1 or 2 carloads per day, being careful to place them upon the stands they were taken from in the fall. I will now leave them entirely alone, not disturbing or handling them only when necessary; this we will know at a glance when flying.

They have been confined so long they have forgotten all about civilization. For a few days after taking them out the greatest care must be taken to keep them from stinging us, which they usually seem bent on doing with a vengeance. I will now take nuclei and put them in colonies that are queenless, crowding them to working order as soon as possible. My loss in 6 years has been 2 per cent. of colonies put up in the fall, and 1½ per cent. of queens.

Pewamo, Mich.



Canadian Bee-Keepers' Convention.

An interesting and profitable gathering of the bee-keepers was held in Lindsay, Ontario, Oct. 11th and 12th in the council chamber. Mr. S. Corneil was called to the chair, and Mr. C. Neads was requested to act as Secretary. There was a good attendance. It was resolved to form an association to further the interests of bee-keepers in the Midland district included by the Central Fair Association. On motion, Messrs. W. G. Russell, C. Neads and S. Corneil were appointed a committee to draft a constitution and report the following evening.

Reports from those present were called for, which being summed up, show that the number of colonies now owned is 500, increased from 188 in spring; and that the surplus honey obtained was 16,240 lbs., 14,900 lbs. being extracted, and 1,340 lbs. in the comb.

The best method of marketing the honey crop was then taken up and fully discussed. It was stated that much injury is often done by parties who, making bee-keeping altogether a secondary matter, bring their honey to the market as soon as taken in poor shape, and are obliged to sell for whatever is offered, thus breaking down the market at the start. The general opinion seemed to be that it was best not to rush the honey on the market too early. Most of those present wished they had their crop still unsold, as prices are advancing.

The next subject taken up was the different methods of wintering and their results. This was a very important discussion, and much valuable information was elicited. One method was to place the hives in a row on scantling, or raised from the ground a short distance in some way, and pack them on all-sides with several inches of either chaff, cut straw, or dry sawdust, in fact, placing them in a large chaff bin outside, each hive, of course, having a shute from the entrance, allowing the bees to fly whenever the weather was suitable. Messrs. W. Hickson, John Calvert, A. E. Calvert, W. G. Russell, Arthur Russell and C. Neads were very successful last winter with this method. Mr. Carnegie, of the Peterboro *Review*, was present during the meeting and was invited to a seat at the table.

At the meeting on Wednesday evening, the report of the committee appointed to draft a constitution was read and adopted.

The election of officers then took place and resulted in the election of the following gentlemen to the different offices, viz: S. Corneil, Lindsay, President; W. G. Russell, Millbrook, 1st Vice President; Mr. Hineman, Grafton, 2d Vice President; C. Neads, Lindsay, Secretary and Treasurer; A. E. Calvert, Reaboro, Thos. Hickson, Reaboro, and Arthur Russell, Millbrook, Executive Committee.

It was resolved that, whereas advanced bee-culture is comparatively a new industry in this part of the country, the importance of which has not heretofore been fully recognized, this association beg to suggest to the directors of the Central Exhibition the propriety of giving greater encouragement by granting more liberal prizes, and making a better prize list.

Resolved, That the thanks of this association be tendered to the Mayor and Council of Lindsay for their liberality in placing the use of council chamber at our disposal.

Resolved, That each member be a committee of one to canvass for members for this association, and to send to the Secretary names of bee-keepers in their vicinity, or any in the territory covered by this association.

A question drawer was opened, and a committee appointed to reply to the queries. This elicited the following questions:

Would it pay to expose at this season of the year empty surplus combs? One reply was that if the combs were placed at some distance from the hives, the bees would clean them up and would not start robbing. Another opinion was that it was better to set them in the back part of the hive separted from the brood nest by a division board.

How to winter with the best results was the next question in the drawer. In addition to the methods given at the previous meeting, Mr. I. G. Moynes, of Fenelon, who has scarcely lost any bees during the last 11 years, gave his method of wintering his box hives in the cellar. His chief points were an even temperature slightly above freezing point, perfect darkness and no jarring, but above all, raising the hives one or two inches above the bottom boards for ventilation. If these points are attended to, it is not of so much importance whether the cellar is dry or not. We may state *en passant* that, after witnessing the bee-keepers' exhibit, Mr. Moynes has determined to reform next spring and exchange his box hives for more modern appliances.

How would you transfer from box hives to frame hives and when, was the next question. As to the time, the answer was during fruit bloom, because the hives are then light, and there is something for the bees to gather. The process of taking bees and combs from the box hive and fixing them up snugly in movable frames was fully gone into, but a description in detail would be too lengthy here. Any one having such a job before him, can get full information in the books on bee-culture, any of which Mr. R. S. Porter will order on application.

Whether is natural or artificial swarming the best method of increase, came next in order. This called forth a most interesting discussion, both methods having very warm advocates. Against artificial swarming, it was urged that more attention was required to prevent natural swarms than could be given by those not devoting their time exclusively to the business; but its advocates claimed for it a larger yield of honey. On the other hand, it was urged against natural swarming, that bees were sure to come out while the family were at church, or at other most inconvenient times, and if not promptly attended, they would go to the woods. Its advocates, while admitting the necessity of a watch, claim that new swarms worked with so much vigor, that a larger yield of honey was obtained. This brought out a comparison of what had been accomplished by an advocate of each method. Thomas Hickson, of Ops, had 13 colonies in the spring, increased to 43, and took 1,600 lbs. of surplus honey by natural swarming. Joseph Russell, of Manvers, had 17 colonies in the spring, which he had increased to 65 by artificial swarming, and obtained 2,000 lbs. of surplus honey. These results were considered so nearly equal, that it was thought better for each to follow the method best adapted to his own particular circumstances.

The association sat till a late hour, but everyone went away pleased with the discussions, and satisfied the time was well spent. The next annual meeting is to be held at the time and place of the next Central Exhibition.

Saunders Co., Nebraska, Convention.

On call of Rev. E. L. Dodder, a meeting of those interested in the culture of the honey bee was had at Wahoo, Neb., Oct. 8, 1881. Present, 15 persons, all residents of this County.

Rev. E. L. Dodder was selected as temporary Chairman, and Rev. J. J. Burtch, Secretary.

The object of the meeting was to consider, and if deemed desirable, proceed to the formation of an association in this County.

After due deliberation, by unanimous consent, the meeting proceeded to the permanent organization of the Saunders County Bee-Keepers' Association by the election of T. L. Whitbeck, President, Mrs. C. L. Stocking, Secretary, S. V. Decker, Treasurer and keeper of supplies. Members enrolled, 15.

A committee was appointed to draft a constitution to report at a subequent meeting to be called by the President.

Numerous valuable suggestions were made by those present, on the care and management of bees.

Rev. E. L. Dodder, by request, delivered an excellent address, covering the entire subject of bee-culture, which was considered a rare treat by those interested in the propagation and management of bees in the most approved and scientific manner.

The speaker has shown by the management of his apiary while residing in our midst, as well as by precept, that he is not only a bee-keeper, but a bee-master, and those who follow his instructions with judgment and care, must succeed. Adjourned.

ADJOURNED MEETING.

The Saunders County Bee-Keepers' Association met in special session pursuant to call of President, at Wahoo, Neb., Nov. 5, 1881.

The Secretary being absent, C. F. Williams was chosen Sec. *pro ɔm.*

The Committee appointed to draft a constitution, presented the same for action, which was adopted.

The officers of the association consist of President, Vice President, Secretary, Treasurer and keeper of supplies, who are elected annually.

Regular meeting, first Saturday in October and April of each year.

Any person may become a member of this Association on application and payment of 50 cents.

Office of Vice President being vacant, C. C. Turney was elected to that office for 1 year.

Additional members enrolled 5; whole number of members 20.

On motion, the Secretary was instructed to furnish each of the town papers, also the Chicago BEE JOURNAL, with a copy of the proceedings.

C. F. WILLIAMS, *Sec'y pro tem.*

SELECTIONS FROM OUR LETTER BOX

Best Hive for Comb Honey.—I commenced last spring to keep a Bee Account Book, noting down everything of consequence, which I shall keep for future reference. We had snow on Nov. 3, but it is all gone and my bees are now bringing in pollen. Please state in the BEE JOURNAL which size of hive you think best for the production of comb honey. F. H. SEARS.
Girard, Pa., Nov. 6, 1881.

[For comb honey nearly all agree that a shallow frame is best—we prefer the Langstroth.—ED.]

Poor Honey Season.—The honey season in this section has been the poorest known for many years. No rain, to do any good, since June 10, till the 28th of this month. Waters lower than they have been for years; many of the streams are entirely dried up. Bees had to be fed to get them in condition for winter.
H. H. BROWN.
Light Street, Pa., Oct. 31, 1881.

[In the West there has been a superabundance of rain for the past month. To have had it equalized between the East and West, would have been more agreeable all around.—ED.]

Entirely Satisfied.—I had 5 colonies in the fall of 1880, and lost 3 last winter; they were wintered on summer stands. I have taken 130 lbs. of fine section honey, and 12 lbs. extracted; increased to 7, all are well provided for winter. I am entirely satisfied over the result of last season's labor. I send my best wishes for the prosperity of the BEE JOURNAL. I am much pleased with it and cannot do without it. F. C. GASTINGER.
Kenton, O., Nov. 2, 1881.

Honey from Alsike Clover.—After uniting a few weak colonies in the spring, I had 136 colonies; sold 61 first class colonies and 2 nuclei, which left me 73 colonies to begin the season with. I worked 27 colonies for extracted honey; have taken an average of 211 lbs. per colony. I put boxes on 20 young colonies, and have an average of 40 lbs. each of comb honey. I run the rest of them for increase, and have this fall 147 colonies. Our bees had 18 acres of new seeding and 4 acres second crop of alsike clover to work on, from which they gathered most of the honey. Basswood did not yield much honey this year.
C. M. WOOLVER.
Hallsville, N. Y., Nov. 6, 1881.

[Here is a very good illustration that even in New York, where land is most valuable, it will pay to plant for bee pasturage. Had our correspondent not run for increase, and suppose only 150 of the 211 lbs. of honey were directly attributable to the alsike, he would have realized 10,950 lbs. from his 73 colonies, which, at 10c. per lb., would have brought the handsome sum of $1,095 rental for 22 acres of clover-land.—ED.]

The National Convention.—I have just finished reading that gem of an article by Dr. J. P. H. Brown, on the "Races of Honey Bees." To the scientific bee-keeper it is worth the price of a year's subscription to the Weekly BEE JOURNAL. I suppose this ends the proceedings of the National Convention, where a great many other splendid articles were read touching points on our noble and interesting calling. But notwithstanding all this, the National Convention did not come up to my expectations. When I read the programme, and then the proceedings, I was disappointed. There seems throughout a great lack of interchange of views. Now, I consider the discussion of the various topics in bee-keeping the backbone of all bee-meetings, whether local or National; but long articles, however excellent, crowd out other work. I do hope, in all future meetings throughout the country, this evil will be remedied by having shorter addresses and more discussion. GEO. THOMPSON.
Geneva, Ill.

[We quite agree with Mr. Thompson regarding the desirability of publishing more debate, but how can it be done without omitting the essays, or limiting their number to two or three? Much of this essay business is very monotonous to the general reader, and might, without loss to the public, be omitted from the published reports. Certainly, no editor would be excused by these essayists if he was to neglect publishing their productions *in extenso*, while giving an official report, and no reporter can do himself justice in giving sketches of debate, where his allotted space is already much more than consumed. We cannot see any way in which it can be done, except for the Society to employ a stenographic reporter, and publish the proceedings in pamphlet form.—ED.]

Spring and Summer Honey Plants.—Which are the most suitable honey plants (annuals) for early spring and summer? My soil is light sandy. Answer in BEE JOURNAL.
THOS. R. SMITH.
Leighton, Ala., Nov. 7, 1881.

[Catnip, motherwort and summer rape, ought to do well on your soil. Although a biennial, try a patch of sweet clover (*Melilotus alba*).—ED.]

Using Drone Foundation.—I have 6 colonies of Italian bees; should I use drone foundation in each hive, and how much? Had I 30 colonies, should I use it, and how much? Or, had I better use a larger quantity in only a few hives located in the center of the apiary. One colony had 12 lbs. of honey, I gave them a frame of granulated sugar candy a week ago, next the side-wall. The bees have been carrying it out at the entrance ever since. I removed the candy, and one-fourth was consumed or carried out at the entrance. Did I get the candy too hard, or burned, or should I have waited until their stores were nearly consumed before I gave the candy? To another colony having 8 lbs. of honey mostly unsealed, I gave 2 frames of sealed honey, next the side-walls. The bees carried the honey to the center frames, stripped the frames of comb, and I think used it to cap over the honey. Why did they do so?
F. M. CHENEY.
South Sutton, N. H.

[Use no drone foundation, unless you have a particular strain that you desire drones from, in which case one or half a comb with drone cells will be ample, near the centre of brood nest. Nothing will be gained by placing this hive in the center of the apiary. Had you placed the sugar candy near the center, there would have been no necessity for the bees to carry it there; being granulated, the bees could not, without too much labor, liquefy it so as to carry it in their honey-sacs to the center. In winter, the moisture in the hive softens the candy so the bees can consume it. The combs of sealed honey might have been placed near the center. The cell-walls were cut away by the bees to give room for a greater number to assist in emptying them.—ED.]

Italians are Good Enough.—I commenced this season with 22 colonies, rather weak; increased to 33 by dividing, and bought 17. I now have 50 strong, pure Italian colonies, except one pure Cyprian, the head of the queen of which I intend to "pinch" early in the spring. The Italians are good enough for me, *i. e.*, the long, leather-collared ones I have taken 700 lbs. of extracted honey of the finest quality, sold at 15 cts.; reared and sold nearly 200 queens, and have not quite done yet. There is plenty of honey in the hives to last through the winter. J. S. TADLOCK.
Kingsbury, Tex., Nov. 1, 1881.

Honey Cake.—At the request as printed in the BEE JOURNAL, I herewith give the recipes for the honey cakes that I presented to the Toronto Convention:

HONEY SPONGE CAKE.—Two-thirds of a breakfast cup of sour cream, 3 cupsful of flour, an even teaspoonful of soda, 1 cup of butter, 3 eggs, 1¼ lbs. of honey, 1 tablespoonful of cinnamon, half tablespoonful of allspice, and a little extract of lemon; mix the spices with the flour; put the soda in the milk and stir well, that all the ingredients may thoroughly mix; beat the cake well for another 5 minutes; put it in a buttered tin—bake from one-half to three-quarters of an hour. This is nice eaten warm. I used buckwheat honey for those at the Convention.

GINGER CAKE.—Take 1¾ lbs. of honey, ¼ lb. of butter, 1½ lbs. of flour, 1 ounce of ginger, ½ ounce of ground allspice, 1 teaspoonful of carbonate of soda, ¼ of a pint of sour milk cream if you choose, 3 eggs; put the flour into a basin with the ginger and allspice; mix these together, warm the butter and add it with the honey to the other ingredients; stir well; make the milk just warm and dissolve the soda in it, and make the whole into a nice, smooth paste with the eggs which should be previously well whisked; pour the mixture into a buttered tin—bake it from three-fourths to 1 hour; take the white of one egg and beat it up with a little sweet milk and take a feather and brush the top; this will give it a glossy appearance. This cake can be baked in 2 equal pie tins. MRS. J. G. A. WALLACE.
Brighton, Ont., Nov. 7, 1881.

[If some good sisters would make a honey cake for every Convention of bee-keepers, it would materially add to the interest. Anything to awaken enterprise and develop the uses for honey, must be advantageous to the bee and honey industry.—ED.

Why the Difference?—One year I had in my home apiary 60 colonies that ceased brood-rearing and honey and pollen gathering about August 15th. According to the best authorities, they should have died off before spring from old age. Six miles away, in a swamp, were 24 colonies which gathered fall honey and pollen for six weeks later—these I bought. According to rule, they should have come through in prime condition. All were wintered in the same cellar from Nov. 17 to April 18. My home apiary, mostly old bees, spring honey, and little pollen, wintered well, and dwindled in spring 10 per cent. The swamp bees, with fall honey and pollen, wintered well also, and dwindled 60 per cent. The only point of difference perceptible was that of frame—the swamp hives having frames 14 inches deep, and the home hives being 11½. Are we to blame the fall honey and pollen on which the swamp colonies wintered, or the difference in depth of frame? If American bee-keepers will visit Toronto Agricultural Fair next fall, I have no doubt they will be somewhat astonished by the honey products exhibited there, as to quality and quantity. I. C. THORN, M. D.
Streetsville, Canada, Nov. 3, 1881.

[The difference in spring dwindling was probably attributable to earlier breeding in the swamp colonies; they had fresher honey, more pollen, and deeper frames to concentrate the heat in the center. We imagine that bees but seldom die from old age—certainly not in summer; but with everything the most favorable for wintering, the long, semi-dormant period is one of rest and repose, rather than debility and exhaustion.—ED.]

Old Queens.—I have several colonies of bees that have retained their drones. Supposing they were queenless, I opened one and found the queen all right. Please let me know through the BEE JOURNAL why it is.
C. BERKY.
Savannah, O., Oct. 3, 1881.

[The queens are old, and honey-gathering and breeding having probably been kept up till quite late, a larger proportion of drones than usual have been reared.—ED.]

New Courage for Next Season.—Allow me to thank you for the very complete table showing the amount of surplus honey, increase of colonies, etc., for 32 States. This table adds one more essential feature to the already popular AMERICAN BEE JOURNAL, and no bee-keeper that expects to keep pace with the rapid strides of our progressive pursuit, can think of getting along without it, and file away for future reference every number that comes into his possession. The full report of the North American Bee-Keepers' Society, so recently held at Lexington, Ky., is a rich feast of great things which so many of us (though we could not be present), by our own quiet firesides, can be informed of all that was said and done through the columns of the BEE JOURNAL. I will not comment upon any particular paper or speech read or delivered before the Convention, but simply say that it is "all good." The bees are doing well in the mountains on goldenrod. A fine rain Oct. 25, gave us new courage, and renewed confidence in the season of 1882.
A. W. OSBURN.
Los Angeles, Cal., Nov. 1, 1881.

"HELEN'S BABIES."—An entirely new edition of this famous book is in press, and will be published in a few days by T. B. Peterson & Brothers, Philadelphia, Pa., with a very handsome illustrated cover having portraits of Budge and Toddie, Martha, Mary and the Goat upon it. John Habberton, the author, has given Budge and Toddie world-wide celebrity; they have pleased thousands with their pranks, and will please thousands more, for it is simply impossible to resist their fascination. Orders should be sent in early.

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.
N. E. FRANCE, *Sec.*, Platteville, Wis.

☞ The Michigan State Bee-Keepers' Association, will convene at Battle Creek, on Thursday, Dec. 8, 1881. We have reason to expect one of the largest and most interesting meetings we have ever held. Let all arrange to be present. All District Associations should send delegates. Each person should come with their best experience in their hands, ready to hand it over to the others of the fraternity. Commutation rates are expected on railroads. A. J. COOK, *Pres.*
T. F. BINGHAM, *Sec.*

☞ The Texas State Bee-Keepers' Convention will be held at McKinney, Texas, on Tuesday, April 25, 1882.

Special Notices.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

◆

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆

☞ Articles for publication must be written on a separate piece of paper from items of business.

◆

Photographs of prominent Apiarists—Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

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☞ When changing a postoffice address, mention the *old* as well as the new address.

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☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

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☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

An Agreeable Dressing for the Hair, that will stop its falling, has been long sought for. Parker's Hair Balsam, distinguished for its purity, fully supplies this want. 44w4

◆

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

◆

Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. It will pay to devote a few hours to the BEE JOURNAL.

◆

Women are Everywhere Using and recommending Parker's Ginger Tonic, because they have learned from experience that it speedily overcomes despondency, indigestion, pain or weakness in the back and kidneys, and other troubles peculiar to the sex.—*Home Journal*. See adv. 44w4

◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

Why suffer such unspeakable tortures? Rheumatism has been conquered. Kendall's Spavin Cure is the victor. See advertisement. 44

◆

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL,
Monday, 10 a. m., Nov. 14, 1881.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. We quote light comb honey, in single comb boxes, 18@21c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@22c.

AL. H. NEWMAN, 972 W. Madison St.

NEW YORK.

HONEY—The supply is full, and trade is lively. We quote as follows: White comb, in small boxes, 18@22c; dark, in small boxes, 15@17c. Extracted, white, 10@11c.; dark, 7@9c.

BEESWAX.—Prime quality, 21½@23c.

THORN & Co., 11 and 13 Devoe avenue.

ST. LOUIS.

HONEY.—In fair demand Comb firmer at 20@22c a lot of 23 boxes sold at the latter figure. Strained and extracted rather slow at 9@12½c.—inside price for round lots. Sale 16 bbls. (8,000 lbs. net) on Thursday, at 9c.

BEESWAX—Selling lightly at 19@20c.

R. C. GREER & CO., 117 N. Main Street.

CINCINNATI.

HONEY—Is in good demand here now.

I quote: Good comb honey, in sections, is worth 18@20c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

BOSTON.

HONEY.—1-pound combs are a desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

SAN FRANCISCO.

HONEY—Supply is in excess of the demand at prices current. Several hundred cases arrived this week, and there are advices of more still to come. We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 9@10c.; dark and candied, 7@8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX. Southern, pure, 21@23c.; Western, pure, 21@22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX—Best light 23@25c.—*Philadelphia Merchants' Guide.*

CLEVELAND.

HONEY—We report the market quite active; all our sales this week of comb honey in 1 pound sections have been made at 22c., and two pound sections at 20c. Extracted has taken a start, and we report trade quite active in small packages, 30-pound tin cans, especially, at 12c. per lb. Extracted in bbls. continues dull.

BEESWAX—20@22c.

A. C. KENDEL, 115 Ontario Street.

Local Convention Directory.

1881. *Time and Place of Meeting.*

Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.

Dec. 8—Michigan State, at Battle Creek, Mich.
T. F. Bingham, Sec., Abronia, Mich.

1882.
Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.

25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.

April 11—Eastern Michigan, at Detroit, Mich.
A B. Weed, Sec., Detroit, Mich.

25—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.

May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

CLUBBING LIST FOR 1882.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1882, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage is prepaid by the publishers.

	Publishers' Price.	Club.
The Weekly BeeJournal (T.G.Newman)	$2 00..	
and Gleanings in Bee-Culture (A.I.Root)	3 00..	2 75
Bee-Keepers' Magazine (A.J.King)	3 00	2 60
Bee-Keepers' Instructor (W.Thomas)	2 50..	2 35
The 4 above-named papers.......	4 50..	4 00
Bee-Keepers' Exchange (J.H.Nellis)	3 00..	2 75
Bee-Keepers' Guide (A.G.Hill)......	2 50..	2 35
Kansas Bee-Keeper........	2 30..	2 15
The 7 above-named papers.......	6 30..	5 50
Prof. Cook's Manual (bound in cloth)	3 25..	3 00
Bees and Honey, (T. G. Newman) ..	2 40..	2 25
Binder for Weekly, 1881...............	2 85..	2 75
Binder for Weekly for 1882..........	2 65..	2 50

FOR SALE—150 Colonies of Italian Bees in improved Quinby hives, in prime condition.
39w1y C. C. AXTELL, Roseville, Warren Co., Ill.

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THE AMERICAN BEE JOURNAL is the oldest Bee Paper in America, and has a large circulation in every State, Territory and Province, among farmers, mechanics, professional and business men, and is, therefore, the best advertising medium.

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In size, THE FARM AND WORKSHOP is 16 pages, 4 columns to the page, 13 inch s long. It is beautifully printed and bound, and by preserving a year's edition, you will have a complete and valuable history of the Farms, Herds and Workshops of the West. It also contains the best and liveliest of stories for old and young. Has a Children's Department, full Produce Market Reports, etc.

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36m1yp

$777 A YEAR and expenses to agents, outfit free, address **P O Vickery Augusta, Maine.** 36w1y

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GOLD MEDAL Awarded the Author. A new and great Medical Work, warranted the best and cheapest, indispensable to every man, entitled "The Science of Life, or Self-Preservation;" bound in finest French muslin, embossed, full gilt, 300 pp., contains beautiful steel engravings, 125 prescriptions, price only $1.25 sent by mail; illustrated sample, 6c; send now. Address Peabody Medical institute or Dr. W. H. PARKER, No. 4 Bulfinch st, Boston. 22w1y

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46w4tx CLEVELAND, OHIO.

The Bee-Keeper's Guide;

OR,

MANUAL OF THE APIARY,

By A. J. COOK,

Of Lansing, Professor of Entomology in the
State Agricultural College of Michigan.

320 Pages; 133 Fine Illustrations.

This is a new edition of Prof. Cook's Manual of the Apiary, enlarged and elegantly illustrated. The first edition of 3,000 copies was exhausted in about 18 months—a sale unprecedented in the annals of bee-culture. This new work has been produced with great care, patient study and persistent research. It comprises a full delineation of the anatomy and physiology of the honey bee, illustrated with many costly wood engravings—the products of the Honey Bee; the races of bees; full descriptions of honey-producing plants, trees, shrubs, etc., splendidly illustrated—and last, though not least, detailed instructions for the various manipulations necessary in the apiary.

This work is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. It is fully "up with the times" on every conceivable subject that can interest the apiarist. It is not only instructive, but intensely interesting and thoroughly practical.

Read the following opinions of the Book;

All agree that it is the work of a master and of real value.—*L'Apiculture*, Paris.

I think Cook's Manual is the best of our American works.—LEWIS T. COLBY.

It appears to have cut the ground from under future book-makers.—*British Bee Journal.*

Prof. Cook's valuable Manual has been my constant guide in my operations and successful management of the apiary.—J. P. WEST.

I have derived more practical knowledge from Prof. Cook's New Manual of the Apiary than from any other book.—E. H. WYNKOOP.

This book is just what everyone interested in bees ought to have, and which, no one who obtains it, will ever regret having purchased.—*Mich. Far.*

Is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without.—*Nebraska Farmer.*

To all who wish to engage in bee culture, a manual is a necessity. Prof. Cook's Manual is an exhaustive work.—*Herald*, Monticello, Ill.

With Cook's Manual I am more than pleased. It is fully up with the times in every particular. The richest reward awaits its author.—A. E. WENZEL.

My success has been so great as to almost astonish myself, and much of it is due to the clear, disinterested information contained in Cook's Manual.—WM. VAN ANTWERP, M. D.

It is the latest book on the bee, and treats of both the bee and hives, with their implements. It is of value to all bee-raisers.—*Ky. Live Stock Record.*

It is a credit to the author as well the publisher. I have never yet met with a work, either French or foreign, which I like so much.—L'ABBE DU BOIS, editor of the *Bulletin D' Apiculteur*, France.

It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat*, Pulaski, N. Y.

We have perused with great pleasure this *vade mecum* of the bee-keeper. It is replete with the best information on everything belonging to apiculture. To all taking an interest in this subject, we say, obtain this valuable work, read it carefully and practice as advised.—*Agriculturist*, Quebec.

This book is pronounced by the press and leading bee-men to be the most complete and practical treatise on bee-culture in Europe or America; a scientific work on modern bee management that every experienced bee-man will welcome, and it is essential to every amateur in bee-culture. It is handsomely printed, neatly bound and is a credit to the West.—*Western Agriculturist.*

This work is undoubtedly the most complete manual for the instruction of bee-keepers which has ever been published. It gives a full explanation regarding the care and management of the apiary. There is no subject relating to the culture of bees left untouched, and in the compilation of the work Prof. Cook has had the advantage of all the previous knowlede of apiarists which he uses admirably to promote and make popular this most interesting of all occupations.—*American Inventor*

It may safely be pronounced the most complete and comprehensive of the several manuals which have recently appeared on the subject of bees and their handling in apiaries. The studies of the structure of the bee, the different varieties, the various bee products, and following these the points of management, extending to the smallest details, are all of high and practical value. Prof. Cook has presented the latest phases of progressive bee-keeping, and writes of the themes discussed in the light of his own experience.—*Pacific Rural.*

Of the many excellent works which we have examined on bee-culture, we consider Prof. Cook's the most valuable for the study of those who contemplate going into the business or are already keeping bees. If thoroughly studied, and its teachings conformed to, by the apiarist, who exercises a reasonable degree of common sense, he or she cannot fail to achieve at least a reasonable degree of success. The author addresses himself to the work with a degree of enthusiasm which carries the reader with him to the end.—*Kansas Farmer.*

Cook's Manual of the Apiary holds in America the same high rank, that is accorded in Germany to the book of which Dzierzon is the author; the only difference being that Prof. Cook's Manual combines the profoundness of the German pastor with the superiority of the practical American. He refers in several instances to Darwin; and does not belong to that class which hates everything that is foreign, for he speaks of German naturalists with great reverence.—*German Freidenker*, Milwaukee, Wis.

PRICE—Bound in cloth, **$1.25**; in paper cover, **$1.00**, by mail prepaid. Published by

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Premiums.—Those who get up clubs for the Weekly Bee Journal for 1882, will be entitled to the following premiums. Their own subscription may count in the club:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

Or they may deduct 10 per cent in cash for their labor in getting up the club.

* * *

A Farmer's Paper.—Attention is called to the advertisement of the *Ohio Farmer*, of Cleveland, O., in this issue of our paper. It is one of the oldest and most valuable agricultural and family papers of the country.

C. Olm's Comb Foundation Machine.

☞ Send for Sample and Circular.
18mtf C. OLM, Fond du Lac, Wis.

HONEY

For the past few years I have made this excellent food my leading article. Having the best established reputation in this city as a dealer in PURE HONEY direct from the Apiaries, enables me to obtain the highest market prices. Your consignments and correspondence respectfully solicited.

R. A. BURNETT, Commission Merchant,
Successor to Conner, Burnett & Co.,
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Of Engravings used in the Bee Journal for sale at 25 cents per square inch—no single cut sold for less than 50c. THOMAS G. NEWMAN,
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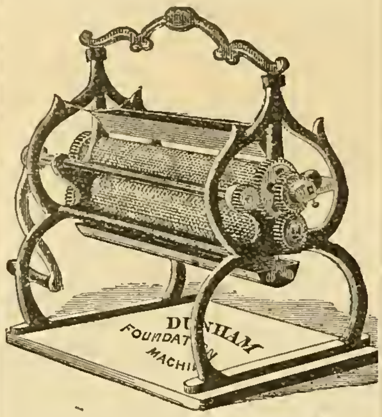

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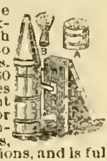

If you desire the benefit of an experience which has enabled us to secure 32,809 lbs. of honey from 160 colonies of bees during the present season, send for our book. It contains 270 pages, with 100 illustrations, and is fully up to the times. Price, by mail, **$1.50.** We sell everything used in advanced bee-culture. Send for our illustrated circular.

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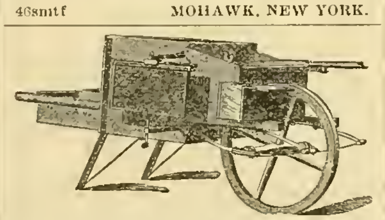
46smtf MOHAWK, NEW YORK.



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REVOLVING COMB-HANGER,
Tool Box and Recording Desk Combined.

Carries honey from the hive to the Extractor, a set of apiarian tools, metal-lined drawers for broken combs and fragments of wax, revolving comb-hanger, which holds comb firmly while pruning or cutting out queen cells, writing desk, and wash basin; will not break nor bruise combs; adjusts to fit all sizes of extracting and brood combs, and is less laborious to handle than the ordinary hand-baskets. Write your address on a postal card, and address it to **JOHN M. DAVIS,**
30wly Patentee and Proprietor, Spring Hill, Tenn.

TIN PAILS FOR HONEY.

These Pails have a full cover, and are excellent for marketing Candied Honey. The gallon and half gallon pails have a bail or handle, the quart and pints have none.

Assorted samples of the four sizes, put inside one another as a nest, price 50 cents. These pails are very useful for many other purposes, after being emptied of the honey by consumers. The following are the prices:

	Per Doz.	Per 100
Gallon, holding 10 lbs. of honey....	$1.80....	$12.00
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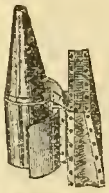

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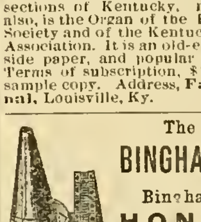

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DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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Demand for Pure Extracted Honey.

From a recent number of the *Farmer and Manufacturer* we clip the following interesting item:

> A commercial exchange says that the American honey trade with Great Britain is growing rapidly. A recent English order calls for 58,000 one-pound cans of pure extracted honey.

Yes. and soon we will have ready foreign sale for every pound of pure extracted honey we can spare. The size and style of package is perhaps the most significant portion of the above item, as they indicate that the honey is wanted to retail for family consumption. Heretofore, the greater portion of extracted honey sent to Great Britain has been used for manufacturing purposes; now, however, since it is becoming a family staple, its popularity and the demand will be almost illimitable.

Again, it corroborates the policy the BEE JOURNAL has long advocated, viz.: That for a retail trade, neat tin cans and pails, ranging from 1 to 10 lbs., will be most eagerly sought for by the small consumer. Properly put up, of irreproachable purity, American extracted honey will in the near future become more popular abroad than the beautiful comb honey which has challenged their admiration, and at more remunerative prices.

Sweet Clover as a Weed.

Mr. H. S. Hackman, of Peru, Ill., writes us the following welcome letter, dated the 15th inst.:

> Please find inclosed flowers of the sweet clover, picked from the roadside, on the prairie, yesterday, 14th inst. Sweet clover, as a weed! Although it has been growing in our roads, on waste land, along railroads, and on our hill-sides for 25 years, it does not seem to get into the fields, except where water has carried the seeds into low places.
>
> I suppose I owe my wonderful summer success largely to the sweet clover. We had the hottest and driest season we ever had—no rain from June 15 until Sept. 15. The hotter and drier the more honey, seemingly. My loss last winter was 163 out of 165 colonies. I bought 8, and commenced this season with 10 colonies; my first division was June 12th. I divide by moving a strong colony, and start a nucleus in its place, with a full hive of combs and one frame of brood. This season I subdivided the nuclei when the queens were ready to hatch, say from 12 to 14 days, by giving each a brood comb again. In this way I have increased from 10 to 71 colonies, which could only be done by dividing and subdividing. My hive is what I will call a systematized Langstroth, 14x14, and 11¾ inches high, inside measure, holding 9 frames. From a number of nuclei, started June 12, July 6, 9, 17. etc., I extracted 60 lbs. of honey from the upper story, in September. Total honey crop for 1881, 1,000 lbs. extracted, 200 lbs comb honey, and bees all strong and well supplied. I work on the tiering up plan. I have taken 40 full sheets of brood from my only surviving Italian colony, and yet it occupied 4 stories, containing 36 frames, and a case of sections again the middle of September. My other colony (blacks) were not much behind this. Each gave me 60 lbs. of extracted honey, which was taken off in September, after it was all finished.
>
> From the time maple and fruit trees blossomed—say, May 1—until Sept. 15, we have had a constant flow of honey. Our principal honey-producing plants are fruit trees, white clover, basswood, sweet clover, wild cucumber and heartsease.

Seventy-one colonies from 10, and 1,200 lbs. of honey! Extraordinary! And yet, with Mr. Hackman's continuous honey flow, and his intelligence to make the most of it, his success this season can be made a matter of common occurrence. His intelligence can be acquired by most of us through thoughtful reading and practical experience, while the continuous honey-flow can be much more speedily and easily obtained. There are but very few locations in the Northern or Central States that are not already supplied with maples, fruit trees, white clover or basswood (and each of the Southern States has some substitute for these), and judicious planting can easily be made to supply the balance of the season.

For most locations nothing will be found so available as sweet clover. Blooming early, as it does, it will divide the attention of the bees with white clover; a portion fenced off will afford a succulent, nourishing pasture for horses, cattle and calves till July 1st, or it can then be mown for hay, and be again allowed to sprout up anew and bloom continuously until winter, cheerless and cold, has with its icy embrace overcomes it. With but little care it can be made to bloom and yield nectar, except when rains are falling or during the prevalence of strong, adverse winds, from the middle of June till past the middle of October—certainly as long a period as our impatient little workers can utilize it; nor will it then cease to "waste its sweetness on the desert air," but after the advent of winter, when all else has passed into "the sere and yellow leaf," its modest flowers will waft a fragrant good-bye to the bee when on its last flight, and leave pleasant memories for its long winter dreams.

We thank Mr. Hackman for his testimony, corroborating that of many others, that it is not an obnoxious weed. Many have abstained from planting it because of the foolish and unfounded prejudice against it. On the contrary, it can be used to advantage as an exterminator of obnoxious weeds. Where dog-fennel pollutes the evening air with its nauseating stench, there scatter the sweet clover seeds and harrow them in; where ragweeds, wild buckwheat and burdocks make the fence corners and roadsides look hideous and slovenly, scatter the seeds and make the weary traveler glad in future years when its fragrance greets him, and you, reader, will feel grateful when you send the BEE JOURNAL your crop report reading like the above—"120 pounds of honey per colony in the spring, over 600 per cent. increase, and bees all strong and heavy with honey." It depends on yourself to do so, not the bees.

* * *

☞ Some time in October we were sent a purple specimen flower for identification, but the letter with the name and address of the sender has been mislaid. Prof. Cook says it is a mallow, probably escaped from cultivation, as it is undescribed in Gray.

Dr. Tinker's Golden Honey Plant.

We are frequently in receipt of letters of similar import to the following, which we have received from Mr. Louis Hofstatter, Louisville, Ky.:

> Please give the common name of the so-called golden honey plant. It may be growing near many bee-keepers who will send money for the seeds, and by being posted through the proper channel—the BEE JOURNAL—could save their money, or invest it according to the value of the plant for their locations.

We are not aware of any common name for the plant, and have no definite knowledge regarding it except that imparted from time to time in Dr. Tinker's correspondence. Prof. Cook, whom we have addressed for the common name, kindly answers there is none "except *Actinomeris;* it is a composite plant, near *Coreopsis.*" How far it may be desirable to have it growing in the vicinity of farms and orchards we cannot say, nor do we know regarding its adaptability to certain soils and climates.

Early recognizing the vital importance of encouraging the cultivation and development of every species of honey plant, in order to determine the most available for certain soils and localities, as well as to secure a continuous honey flow, we have gladly availed ourselves of every opportunity for observation, and have taken every occasion to impress upon the apiarists of America the benefits of planting for honey. It should not be satisfactory to them that Dr. Tinker finds golden honey plant most desirable for his locality in Ohio, nor that Mr. Dodds is enthusiastic over cleome for Iowa, while Mr. Hackman attributes his wonderful success in Illinois to sweet clover. Planting, and what to plant, are problems which every bee-keeper should, and eventually will, solve for himself, if he would make the most of his surroundings with a view to the greatest success.

* * *

☞ "The production, care, and sale of extracted honey," is a subject of much importance, and we are promised a series of articles on it from the pen of Mr. James Heddon, to commence in January next. That is the staple article, and to it we give special and critical attention. We are glad to welcome Mr. Heddon to a place in the BEE JOURNAL on this subject. He has had much experience, and his articles will be valuable.

Floral Offering.—Mr. E. Hoyt sends us a sweet clover bouquet from Highland, Madison county, Ill., gathered on the 16th inst., for which he has our thanks. We culled our last flowers of the season on the 17th—of course, they were sweet clover. We want this fact borne in mind: That sweet clover can be made to bloom continuously, from the middle of June till as late as the bees can fly, and the honey from it is second to none.

☞ We are sometimes asked who our authorized agents are? Every subscriber is such an agent; we have no others, and greatly desire that each one would at least send in one new subscriber with his own renewal for 1882. The next few weeks are the time to do this. We hope every subscriber will do his or her best to double our list for 1882.

Premiums.—Those who get up clubs for the Weekly Bee Journal for 1882, will be entitled to the following premiums. Their own subscription may count in the club:

For a Club of 2.—a copy of "Bees and Honey."
" " 3.—an Emerson Binder for 1882.
" " 4.—Cook's (Bee) Manual, paper.
" " 5.— " " cloth.
" " 6.—Weekly Bee Journal for 1 year.

Or they may deduct 10 per cent in cash for their labor in getting up the club.

Another Explorer in Search of Foreign Bees.—Sig. J. Fiorini, an Italian, and Messrs. D. A. Jones and Frank Benton, Americans, have, at great cost of money and hardships untold, obtained Cyprian and Syrian bees, and the latter has visited Ceylon and Java in search of *Apis dorsata* and *Apis florea*, and now Mr. T. B. Blow, an Englishman, is to start on a similar errand as will be seen by the following item from the *British Bee Journal* for November:

> Mr. T. B. Blow, of Welwyn, Herts. expert of the Hertfordshire Bee-Keepers' Association, intends to visit the East with the object of importing bees of the various Eastern countries. In this, Mr. Blow is animated with a patriotic feeling, as he thinks it is not desirable that English bee-keepers should be behind their American cousins. For some time past large consignments of Eastern bees have been forwarded to America, and it is said they are much appreciated both for their working powers and their greater prolificness. Mr. Blow hopes to be able to bring over a large number of colonies from Albania, Dalmatia, Smyrna, Cyprus and Syria, and expects to start very shortly.

It is amusing to know that this journey is instigated by a "patriotic feeling," for "it is not desirable that English bee-keepers should be behind their American cousins!" As they were not in advance of Americans in this affair, where else could they be, "but behind?"

☞ A Liverpool circular says that nearly 900,000 barrels of American apples have been landed this fall, and that good fruit is always salable and the demand without limit. The demand for American honey is also almost "without limit."

☞ Subscriptions may commence with the first number of any month in the year.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Formed an Association.—The bee-keepers of Marion Co., Ind., have lately formed themselves into a Society, as will be seen by the following from the *Indiana Farmer*:

> A number of the prominent bee-keepers of this county, met in the rooms of the State Board of Agriculture, pursuant to the call of C. S Schofield, Vice President of the State Association, for the purpose of organizing a County Association. Sylvester Johnson was made temporary Chairman, and Frank L. Dougherty, Secretary *pro tem.* An organization was perfected, with the adoption of a suitable constitution, with rules and regulations for the government of the society. The following officers were elected: President, Sylvester Johnson; Vice President, Mrs. Cass Robbins; Secretary, Frank L. Dougherty; Treasurer, Mrs. Stout. In a promiscuous conversation, it developed that the bee-keeping industry in this part of the State is in a fair condition despite the drouth of last summer, there being quite a fair yield of honey reported. The meeting adjourned to meet on Saturday, Nov. 12, at the same place, at 1:30 p. m.

Detecting Glucose in Honey.—Prof. A. J. Cook, writes to the New York *Tribune* concerning some tests of adulterated honey:

> I then tried the lime test as given by Dr. R C. Kedzie, in his valuable report (see State Board of Health Report of Michigan, 1874, page 33). The behavior was in every case alike, as I added the oxalic acid. Evidently, the glucose manufacturers had succeeded in removing all the lime. I next tested for that most hurtful substance, sulphuric acid. Every sample of honey remained perfectly clear as I added the nitrate of baryta, but every sample of glucose hung out a flag of truce. Each called for quarter by throwing down a white precipitate. We have here two points of interest: first, the presence of the poisonous sulphuric acid in these samples, which to all appearance was very fine. Surely, these are no fit food for man or bees. Secondly, we have an easy test for sulphuric acid, which, if not always present, is one of the most injurious substances when present, to be found in this abominable stuff, glucose. We have only to take a little nitrate of baryta, and add to the suspected honey. If it remains clear, we surely know that there is no sulphuric acid present, and probably it is pure honey. But if it turns milky, it is to be thrown aside as containing glucose, which in turn contains the justly dreaded sulphuric acid.

What a Honey Show has Done for Canada.—The Stratford, Ont., *Beacon*, remarks as follows on the result of the honey show at Toronto:

> The busy bee occupies a larger place among the wealth producers of the countrymen than is generally supposed. Bee-keepers are invariably looked on as enthusiastics, and their pursuit smiled at as a sort of hobby that pleases them and don't do anybody any harm, except the unfortunates who happen to get stung. Yet the honey crop is an important item in the material wealth of this continent, and the total production aggregates an enormous amount. Glancing through a number of the American Bee Journal, a lively paper published in Chicago, we found a tabulated statement of the honey product for 1881, which fairly astonished us. The figures were admittedly incomplete, indeed, the editor claims that they do not represent more than a 12th of the season's crop. Yet the surplus honey accounted for by actual producers was no less than 9,467,622 lbs., worth at a low valuation over a million and a half of dollars. Canada stands third on the list, with a production of 1,173,625 lbs.
>
> Regarding the profit of bee-keeping, there can be no doubt. The average rate of increase over the whole continent was 71 per cent., that of Canada being 91 per cent., while the amount produced by each colony of bees was 69 lbs. in the United States. and 96 lbs. in Canada. The splendid display of honey in all shapes at the Toronto Industrial Exhibition, called the attention of thousands of people to the subject of bee-keeping, who had hitherto not given it a thought, and the result will probably be a great increase in the number of apiarists next year. The surplus honey is now almost all exported, there being a constantly growing foreign demand. The home market is but scantily supplied, as it is with the best grades of butter and cheese, but there are few persons who have not a sweet tooth, and who would not buy honey in considerable quantities if it were presented to them in neat packages and in nice condition. The demand is even now far greater than the supply, and could be increased almost to an indefinite extent.

The Honey Season in England, Scotland and Ireland.—The London *Horticultural Journal*, gives the following summary of the honey season in Great Britain for the year 1881.

> In the south of England and in the East Riding of Yorkshire, in Lincolnshire, and other parts bordering the German Ocean, bees on the whole have done well, and, so far as I can learn, the bee-keepers in those parts are satisfied with their harvest of honey. The bee and honey exhibitions in London and at Louth, Lincolnshire, were considered good and satisfactory. In many other parts of England, bees, during the hot weather in June, gathered great stores of honey, and thereby created great interest in apiarian circles and expectations of large profits; but in the flush and glut of honey from white clover, the weather became bad and did not improve till the clover season ended; and as hives were then full of bees, and as bees in summer need and consume much food, their large stores were soon made less. During the last half of July and all August, bees lost weight very fast. Though the season has been encouraging from some points of view, it cannot be considered a first-rate one for honey in some of the midland and northern counties of England. The quality of the honey taken, however, has been excellent.
>
> The Scottish bee-keepers, who, during the last dozen of years have been favored with some good seasons for honey, while the English have had to contend against some very unfavorable ones, have this year been more unfortunate than we, for the honey season in the north has been a failure. Even on the moors in Scotland this year, bees gathered little, if any honey at all. In the north of England no heather honey has been obtained this year.
>
> From Ireland, I have not had any particulars as to the success or non-success of bee-keepers there this year. I have seen some Irish honey of this season good enough of its kind, evidently gathered from the yellow weed of cornfields, known by the name of Ketlock or field-mustard. This plant yields rather clear honey, with a greenish or yellowish tint, and does not taste well beside honey gathered from fruit trees and clover fields. Though the honey of Ketlock is not first or second-rate, yet fields of Ketlock in the neighborhood of an apiary are of great value to bees, for they yield much honey and pollen when the fruit blossoms disappear, and before the white clover comes into flower.
>
> We are glad that 1881 has given English bee-keepers some very good honey and great encouragement to look hopefully forward to future years.

Popularity of Comb Foundation.—Prof. A. J. Cook, in the New York *Tribune*, remarks as follows:

> The use of comb foundation is finding favor abroad as well as at home. A British writer says, from experience the past season, that, "as a rule, colonies left to build their own comb, failed to more than half fill the hives, while even late August colonies on foundation, are as good as any." I tried the foundation in 1875, when first sent out by John Long, and then said it was a great discovery, and would revolutionize our methods in the apiary. Comb foundation has become a commercial staple in the United States, and the enterprising apiarist does not think of doing without it. Like many other recent inventions, it is of very great use, and is doing its part to accelerate the progress of this, perhaps, the most progressive of manual labor pursuits.

☞ The Texas State Bee-Keepers' Convention will be held at McKinney, Texas, on Tuesday, April 25, 1882.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL,
Monday, 10 a. m., Nov. 21, 1881.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. We quote light comb honey, in single comb boxes, 18@21c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@22c.

AL. H. NEWMAN, 972 W. Madison St.

NEW YORK.

HONEY—The supply is full, and trade is lively. We quote as follows: White comb, in small boxes, 18@22c; dark, in small boxes, 15@17c. Extracted, white, 10@11c.; dark, 7@9c.

BEESWAX.—Prime quality, 21½@23c.

THORN & CO., 11 and 13 Devoe avenue.

CINCINNATI.

HONEY—Is in good demand here now.

I quote: Good comb honey, in sections, is worth 18@20c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

BOSTON.

HONEY.—1-pound combs are a desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 21@22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX—Best light 23@25c.—*Philadelphia Merchants' Guide.*

SAN FRANCISCO.

HONEY—A sale of about 120 cases of choice extracted is reported at 8¾c. for export, and this may be said to very closely represent the extreme views of shippers. In a retail way 9@10c. is realized, but sellers are more numerous than buyers.

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 8¾@10c.; dark and candied, 7@8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.

ST. LOUIS.

HONEY.—Steady, with sale for all offered at quotations: comb at 18@22c.; strained and extracted, 8@12½c.—top rates for choice put up in small packages suitable for retailing.

BEESWAX—Selling lightly at 19@20c.

R. C. GREER & CO., 117 N. Main Street.

CLEVELAND.

HONEY—We report the market quite active; all our sales this week of comb honey in 1 pound sections have been made at 22c., and two pound sections at 20c. Extracted has taken a start, and we report trade quite active in small packages, 30-pound tin cans, especially, at 12c. per lb. Extracted in bbls. continues dull.

BEESWAX—20@22c.

A. C. KENDEL, 115 Ontario Street.

CORRESPONDENCE

For the American Bee Journal.

The Three-Band Test Again.

G. W. DEMAREE.

Mr. Doolittle's article on page 285 AMERICAN BEE JOURNAL, discussing the subject indicated by the above caption, I think deserves more than a passing notice. For, if a writer of the observation and experience of Mr Doolittle, after discussing the subject at some length, apparently decides to leave the matter unsettled so far as he is concerned.

I presume the question is fairly an open one. He commences the discussion by quoting language found in a former article of mine bearing on this subject, and gives Mr. A. I. Root's answer to it, viz: That "such is the test that must be applied to the progeny of some queens imported directly from Italy in order to see the three yellow bands." Why does not Mr. Doolittle answer the question himself? He is as competent to do so as Mr. Root is. I believe it is true that he has not written a book as the latter gentleman has done. Good old Job expressed regret in pathetic language that his adversary had not written a book. I suppose Job thought that if his adversary had written a book, he would have defined his views and would therefore have been unable to wriggle and twist about, when he had him in a close place. Mr. Root has written a book, and when he gets into trouble, he must abide by what is found in his book. Mr. Doolittle is at more liberty to shift grounds and wait for something to turn up.

Mr. Root is doubtless correct when he says "that the progeny of some queens directly from Italy must be placed on a window in order to show the three yellow bands." And he might have gone further and told us "that the whole of the progeny of some queens imported from Italy do not show the three-bands at all, for the simple reason that they are not there." I have seen at least one such imported queen, and others can bear testimony to the same fact.

But Mr. Root contends that just so a queen hails from Italy, she is pure *ex necesitate rei*. Of course if this view of the case is accepted, we must have some test that can be adapted to the bees, and I know of nothing better than the window test.

In the spring of 1880, I prepared a small room so as to be made perfectly dark, except a window 10 inches square, and while my bees were working on the maple, I tested a great number of them, and I found that the meanest hybrids would show the third band in splotches, and broken lines, and in some cases in mere specks. Will gentlemen tell us just how much of the third band should be visible to pass the bee as "pure?"

Mr. Doolittle discusses the subject logically and conservatively, but he leaves it unsettled so far as his views are concerned. It is true he says: "I claim every bee should show the three-bands while standing on the combs, to be such bees as I should want to breed from." Right here I agree with him to a dot. I meant no more than that by the expression "under all circumstances." If he had stopped here, there would be little doubt as to his position. But he concludes by saying: "As far as my experience goes, I have yet to see the queen whose progeny show the three-bands under all circumstances."

It may be obtuseness in me, but I am unable to reconcile the two statements. Perhaps friend Doolittle can do better with them than I can. At any rate, it appears that he has never had the pleasure of seeing the finest specimens of the yellow race of bees. Mr. Dadant thinks that I am eager to make war on "dark Italians." I assure him that he is mistaken in his ideas concerning my position relative to the several races of bees. I am the enemy of no race or type of bees under the sun. I can handle and make subservient to my will any bees I ever saw. But there is room for selection, and I want the best that can be had. It seems to me that any man looking coolly at the language used by me, when noticing the deadly thrust aimed by Mr. Dadant, at the untried strangers from the Island of Cyprus can see that my intention was to joke and worry him. But he asks me if it "would have been more honest to keep on selling them without saying a word about their irrascibility?" I answer, certainly not; and further, that if he has been advertising and selling to his customers a worthless thing, honesty demands that he should not only give warning, but refund the money in every case where he has made a sale. What would you think of a man who would sell you an article and then notifiy you that the thing was worthless, and that you had better let it alone, and at the same time keep your money? I am only supposing a case, for Mr. Dadant has done no such thing. The Cyprian queens that he has sold are worth the price he charged for them. If pure, they are in no sense, except the good trait of quietness, inferior to the Italians, and in some respects they are superior to them.

Mr. Dadant seems to think because I keep a small apiary, and have bought no bees from him, I draw upon my imagination when I write on the subject of bee-culture. This is a remarkable conclusion. It is true, I keep a small apiary, and keep it for observation and study. Perhaps I can find as much time when not engaged in my professional duties, to study the habits and natural history of the bee, as Mr. Dadant can spare for the same purpose from the labors necessary in his fine apiaries. I have heard of Mr. Dadant for a long time, and I owned bees before I had any knowledge of his existence. But time don't make men. It is brains and close application that fit men for the duties of life, whatever those duties may be. I take a broader view of the subject under discussion that Mr. Dadant is able to comprehend, at least it appears so.

To talk about the "leather-colored" bees being a distinct type or strain of Italians, is simply nonsense. I have yet to see the queen whose royal progeny do not show more or less the outcropping of the two so-called strains. Mr. Dadant says that I don't "speak from experience," because I have never bought a queen from him. This is the most remarkable of all the remarkable things that he has said while discussing this subject. Does Mr. Dadant pretend to say that bees of his importation differ materially from those imported by other persons from the same place? Why, bless his soul! With all my "eagerness" for war on the "leather-colored Italians," I have never seen the time since I commenced the culture of the yellow race of bees that I did not have the so-called leather-colored Italians in my apiary. I have found it next to impossible to suppress them. Nothing less than the cruelty and craft of Herod the Great, who slew all the children from 2 years old and under, could suppress them.

If Mr. Dadant's customers had demanded of him pure yellow bees, instead of ordering them under the flexible nomenclature Italians, he would not have been able to fill one order in a half dozen. This is why "some people" may suspect that the wonderful power called selfishness may move the best of men.

I hold that the hive bee (*Apis mellifica*), is divided into two distinct families or races, viz: the yellow and the black races. That the yellow race is superior to the black. Now it makes but little difference where bees come from, be it Italy, Cyprus, Palestine, Egypt or anywhere else, if they are black or "dark," if you please, they cannot belong to the yellow race of bees

Let us put the matter in as simple a shape as possible. The two races are distinguished one from the other chiefly by their color; the one is yellow, and the other dark or black. Now, when we see bees of an intermediate color, do we not reason from cause to effect when we call them hybrids?

I have felt a deep interest in this subject, and while I may in a jocular way say some tough things, I have all due respect for the opinions of others.

Christiansburg, Ky.

* * *

For the American Bee Journal.

Pollen and Dysentery.

A. R. KOHNKE.

Prof. Cook's statement in No. 41 of the BEE JOURNAL, page 326, is as follows: "That pollen was in many cases injurious to bees in winter, as it had a tendency to unseasonable breeding, and hence was the cause of much spring dwindling." Put the other way: Spring dwindling is caused by unseasonable breeding, and that is induced by the consumption of pollen in moderate or immoderate quantities, whichever way you may choose to put it. What I especially wish to emphasize is, that the bees did not take to unseasonable breeding on account of a moderate or immoderate consumption of pollen, and that the presence of pollen is not and cannot be the direct or indirect cause of spring dwindling, especially not of dysentery. Unseasonable breeding may be the cause, which in turn is the effect of a problematical cause. Even the expression, "unseasonable breeding," I doubt very much as correct. I have seen bees rear brood by the middle of February in the northeastern part of Germany, the winters there being as severe as in any part of Michigan or Wisconsin, though not much spring dwindling or dysentery is known in that part of the country.

Now, I will take a step in the opposite direction, by saying that the absence or deficiency of pollen in winter causes dwindling and dysentery in spring, to prove which I will quote Berlepsch, who says as follows: "In 1865, for the sake of an experiment, I wintered a very strong colony without any pollen, but plenty of honey, and in the spring of 1866 it was the only colony among 70 which showed signs of restlessness and dysentery."

Youngstown, O.

* * *

For the American Bee Journal.

Facts About Honey Plant Culture.

W. T. STEWART.

Having had many letters of inquiry concerning the plants named in my article read at the Convention at Lexington, I think best to answer all at once through our much loved AMERICAN BEE JOURNAL; by so doing, I can probably answer many queries that will benefit bee-keepers generally.

The Simpson Honey Plant (or figwort) is very hard to propagate from the seed; the only successful way that I know of is to sow the seed in a rich plant bed early in the spring, and when well up, or in the fall, transplant in the field, 4 feet apart one way and 2 feet the other. It will not do to sow with wheat, etc. I have a fine lot of young plants this season in plant beds.

Motherwort will come from the seed sowed broadcast with wheat, or any other way that is most convenient, provided the ground is loosened a little; nearly every seed will grow, too. It is best to sow early in the fall, but it will do any time in the warm season. I have millions of it now, 4 inches high, sown last September; it is quick and easy to propagate, anywhere; hence it is very valuable.

Catnip bears the same treatment as motherwort, in every particular as to time and manner of growing. I have it growing from the seed saved this season.

Melilot is best sown in the fall, but will grow any time or anywhere, except on a flat rock.

Motherwort, figwort and catnip are very easily eradicated when wanted no longer; at least so as not to interfere with any crop. Melilot will eradicate itself by not letting the seed ripen.

I have no seed of any kind to sell this year, having sown them all for my own bees. Next year I shall save seed to sow in other locations. I suppose some of the dealers have melilot for sale, as it is the most useful thing in the business. Ask A. H. Newman, of Chicago, Ill., for the seed. If you don't get the seed, get a few plants and raise your own seed; that is the way I done it. Set the plants now, or in the spring either; melilot does not do very well to transplant, unless very small.

The bee man within hearing of the bells of Eminence, that the Cyprians whipped out, mentioned in AMERICAN BEE JOURNAL of Nov. 2, is out on duty. He sent to D. H. Pike for some Albino queens, and killed his Cyprians, and I am right glad the thing happened before I got any of the blood into my apiary, for it was only 3 miles away. Peace is again restored on this line about Eminence apiaries; only one man has the Cyprians now, near here, and the indications are that he will be cured next spring.

Eminence, Ky., Nov. 5, 1881.

* * *

For the American Bee Journal.

The Knowledge Possessed by Bees.

T. C. STARR.

Do bees know what is going on throughout their own hives, and can they communicate with each other?

Last April I had occasion to transfer some bees from box hives to movable frame hives; the latter were arranged for two sets of frames, upper and lower. In transferring, the combs were placed in the lower story, and the upper space left vacant, no empty frames being placed therein.

The bees were driven out of the old hive into a box, until the combs were transferred to the frames and placed in the hive, when the top or movable corner was removed from the hive, and the bees shaken out of the box into the hive on to the frames of honey and brood; the corner was then put on the hive, and to all appearances the bees were doing well.

In about a week I examined the frames (from a side door in the hive), to see if the combs were fastened, in order to remove the transferring wires, when I was surprised to find many bees clustered and hanging to the corner of the hive, and on examination of the combs, I found no eggs therein, but some 15 queen cells already far advanced towards capping.

I then examined the cluster of bees hanging to the corner of the hive, and found they had started combs, every cell almost of which was occupied by eggs and larva, proving that the queen was in the corner; that when shaken into the hive, she had crawled upward instead of going in among the combs covered with honey at the time.

There was only the one entrance to the hive, and every bee that went out of the hive from the place where the queen was, had to go down through the combs and also return through them. If they can communicate with each other, why did they not entice the queen down among the combs? or, why did the bees among the combs rear queens, if they knew their queen was only a few inches above them in their hive.

The queen of another colony got under the hive, out side entirely; the bees had commenced combs there, and they were all filled with eggs, while on the inside of the hive they had commenced to rear queens, when on the third day I discovered the state of affairs, and put the queen in the hive.

What is the difference between Italians and Palestine bees? We have quite a good many Italians here, in this part of the state, and I like them very much, but as our country and climate resembles Palestine so much, would it not be likely that they (Palestine bees) would still do better? I see they are highly recommended, but have seen no description of them.

My bees have made no surplus honey, but are rearing brood now, and have honey enough to winter well, I think. I increased by natural and artificial swarming from 20 to 37 colonies.

The BEE JOURNAL is a most excellent paper, and I could not possibly do without it, many single copies being worth more than the year's subscription. Please put me down as a life subscriber, for I do not wish to miss a single number.

San Bernardino, Cal., Oct. 3, 1881.

[For information regarding the Palestine bees, see Prof. Cook's able article on "The new races of bees," in the Weekly BEE JOURNAL for Oct. 12, page 323.—ED.]

For the American Bee Journal.

Moth-Trap Hives.

W. H. ANDREWS.

The following criticisms in a Southern paper is from the pen of a veteran patent moth-trap vender:

I have noticed in the Louisiana *Democrat* a letter of Judge Andrews, of McKinney, Tex., copied from the AMERICAN BEE JOURNAL, in which a very ludicrous comparison is made between the depredations of buzzards upon cattle, and those of moths upon bees. He says: "Can we manage cattle so the buzzards will not destroy them?" I answer, yes; give them good pastures in summer, spring and fall, and supply them with an abundance of forage during winter. Keep them fat, and there is little danger of buzzards. Now it is true that the Judge's so-called harmless moth seldom attacks the strong and healthy colony of bees; but unlike the buzzards, they do not wait for their prey to die. When the bees become weak, they are liable to be attacked by moths, while the buzzard feeds only upon carrion. The moth feeds upon the wax, depriving the colony of a receptacle for honey, and the queen of the cells in which to lay her eggs. The duration of life of a working bee is but 70 days, consequently, if the queen has no place in which to deposit her eggs, the colony soon will be exterminated in the natural order of things. When the hive is guarded by a "reliable moth trap," protection is afforded against these invaders of the hive, and as any impartial or unbiased mind will see, and admit, they may continue their operations unmolested.

J. F. VAN HORN.

Alexandria, La., Sept. 15, 1881.

In reply, I have this to say:

The Captain quotes (as a question propounded by me), "Can we manage cattle so that the buzzards will not destroy them?" And he answers, "yes," and proceeds to tell us how it can be done. Now the course of the Captain's position is that unless cattle are thus managed, the buzzards will destroy them. Destroy cattle, Captain, or only eat up their comparatively worthless carcasses? But the Captain says: "Keep them (the cattle) fat, and there is little danger of buzzards." Then Captain, there is some danger, though our cattle are "strong and healthy." Now, you have traveled all over Texas, and likely know wherein this "danger," though little it be, consists. Tell us.

The Captain says further, "Now it is true that the judges, so-called, harmless moth seldom attacks the strong and healthy colony of bees, but unlike the buzzards, they do not wait for their prey to die."

Now, if fat cattle are in "little danger of buzzards," and if the "moth seldom attacks the strong and healthy colony of bees," I take it that the buzzards and the moth are about alike, "comparatively harmless."

But the buzzard does not always "wait for his prey to die." I have seen him pluck the gleamy, sightless eye from its socket while the cow was yet alive; but this was only an innocent mistake on his part, for he thought she was dead—he thought she was surely "carrion." The Captain is right when he says "the buzzard feeds only upon carrion," and so he is when he says in the next sentence, "the moth feeds upon wax," etc., and he might have added, "and wax only." So I prove by the Captain, upon cross examination, that it is absolutely true that the wisest cattle man of Texas cannot "manage cattle so that the buzzard will not destroy them," for the reason that "the buzzard feeds upon carrion," not upon cattle, and in like manner, I prove that even Mr. Langstroth could not "manage bees so that the moth will not destroy them," for the reason that "the moth feeds upon wax," not upon bees, any more than the buzzard feeds upon the gamboling, bellowing ox.

And I prove also that the moth is only a bee-moth, "so-called," for it does not feed upon bees, but "upon the wax," and I will add, whether "the wax" be inside of a bee hive, or on the top of a church spire.

The Captain says: "The moth feeds upon the wax depriving the colony of a receptacle for honey, and the queen of the cells in which to lay her eggs."

Now, with full confidence in my position, and due respect to all, I challenge Captain Van Horn, and all the other itinerant moth-trap venders of North America, to show that the moth ever trenched upon the precincts of the brood chamber, or even encroached upon the confines of the comb occupied by the colony.

The Captain says: "When the hive is guarded by a reliable moth-tray, etc." I do not desire to infringe upon the right of the patentee of this statement, unless it be an infringement to say that the great Creator of all things (except moth-traps), in His infinite wisdom, ordained before the foundation of the world that no such thing as "a reliable moth-trap" should ever be invented, much less, patented.

McKinney, Tex.

For the American Bee Journal.

Experience of a Beginner.

PROF. S. J. ROBBINS.

I like the BEE JOURNAL very much. I look for it with more interest than any other I take. I bought 10 colonies of bees last spring. I rode many miles to find them, that I could buy at any price, for bees nearly all died about here last winter. Most of the bees I bought were in box hives. Mrs. R. and myself transferred them to movable comb hives. They were all weak colonies when we bought them. They seemed to be very thankful for their new homes, and built up fast; we did not allow them to swarm. They made comb honey enough to pay for themselves and their new hives and all the comb foundation, tools, bee papers, etc., and quite a little margin left. I put two-pound sections on the hives for them to work in. After they were filled and glassed, Mrs. R. papered the boxes nicely, and they looked very attractive. I sold most of the honey at 25 cts. per lb.; some of the dark at 22 cts. per lb.; could sell much more if I had it. This is not called a good honey year; the drouth cut off all fall supply. My bees are in good condition, except one colony, which has no queen. I have been expecting one since July. I sent for two and got one. I would like to ask if my experience is common among bee men. In July, I sent to a queen-breeder for 2 queens. I promptly received this reply: "Money received; will ship the queens this week." One came, not two. It was introduced all right; when her bees began to mature, they all proved to be drones. I took her out and killed her, after advising with the queen-breeder. Word came again: "I will send you 2 queens very soon." One came, not two. It is introduced and doing finely. I am now unable to get any answer from the man, whatever. And again in July I sent to another party, who edits a monthly bee paper which I subscribed for, and would take if I could get it (the September number not having arrived yet), for nuclei colonies of bees, according to his advertisement. I did not get an acknowledgement of the money. I wrote several letters and sent one telegram, all of which were not answered. After 30 days I sent to the postmaster who paid the money order, and with his help, I got the money back. What I wanted to do was to get nuclei and queens to use in dividing. As it is, I have worked faithfully from July till now in two directions, and have only been able to get one barren and one fertile queen. I live 3 miles from the post office, and 4 miles from express office, and I have traveled miles enough expecting to find those bees to have paid for several colonies, if I had been allowed mileage. Now if this is the ordinary way men do business who rear bees, I want to know it. Will some one please tell me through the JOURNAL about what are the appearance and good qualities of Hungarian bees?

Penfield, N. Y., Oct. 7, 1881.

[Such things are very reprehensible, and any queen breeder who does not fill his orders promptly, or at least reply to inquiries after receiving the money for queens or bees, should be driven from the business, giving place to honest and honorable men.—ED.]

For the American Bee Journal.

Description of Cyprian Bees.

L. A. LOWMASTER.

Cyprian bees are very light colored, the ground color being a yellowish brown; the three orange-yellow bands are broad; the 4th, and even a 5th yellow band being generally visible when the bees are well filled, while the underside of the abdomen is yellow to the tip, which is black; the cresent-shaped shield on the thorax, between the bases of the wings pointing forward, is very prominent and yellow.

Between Cyprians and Italians, when not filled with honey, there seems to be little difference as to size and shape, but when both have their honey sacs distended, I think the Cyprians are longer, and presents a slightly more slim appearance.

Cyprian queens average smaller than Italian queens, and have long, slender, nicely-pointed abdomens. The diligence of the Cyprian is at least equal to the Italian; indeed, as regards economy within the hive, the former have the preference, because they are less inclined to build drone-comb. In their purity they are certainly more beautiful than the handsomest Italians. Those who visit my apiary are always much surprised when strong colonies of these beautiful bees are opened, and masses of bees roll out so peacably. When rightly handled, they are neither more nor less inclined to sting than the Italians.

In the collecting of honey the Cyprians are very diligent. They appear to be discreet in the occupation of combs, already built with the brood and honey, and only after that to devote themselves with full zeal to the building of new comb.

On page 268 of the AMERICAN BEE JOURNAL, Mr. C. J. Robinson, said: "I claim, as set forth in a former article, that queens are impregnated with royal jelly (drone's semen) while in the larval state."

I would like to have Mr. Robinson explain how this "drone semen" is obtained, and by what process do the bees get it? According to his theory, drones from a pure Italian queen would be pure blacks, if the "drone semen" was from black drones; and if the queen mated with a pure Italian drone, the bees would be pure Italians, and the drones would be pure blacks. This would be a fearfully mixed up progeny! Suppose that there were no drones until the queen was sealed up and none of the "semen" could be obtained, then, of course, the queen would lay no eggs that would produce drones. We could not rely upon the purity of the drones from an Italian queen. We want facts, not guess-work.

Belle Vernon, Ohio.

For the American Bee Journal.

Pollen for Brood-Rearing.

C. J. ROBINSON.

Prof. Cook, in the AMERICAN BEE JOURNAL, says that "breeding can only be carried on when there is pollen in the hive." This statement flatly contradicts one made by me, on first page of the BEE JOURNAL for June 29th. I there say: "They are certainly wrong who say that pollen is indispensable to the raising of young bees." It now should be determined whether Prof. Cook made an erroneous statement relative to pollen being absolutely necessary as a nourishing diet for larvæ brood, or whether I am guilty of the error. Both statements, *pro* and *con*, stand upon the pages of the BEE JOURNAL as recorded facts, and one or the other should be wiped out.

I do not presume to know how Prof. Cook's bees behave, when rearing brood, but I do know that my bees raise brood, when required, without a particle of pollen; and I venture the assertion again that any and all domesticated bees, other conditions being favorable, will rear brood just as readily and equally as well without pollen, as with it. It is not a difficult experiment to test the question at issue. I offer the testimony of one reliable witness to coroborate my side of the issue, and then rest my case, allowing it to go to the jury (readers) to pass upon, and award their verdict in favor of the party in the case whose statement is correct and true.

Prof. Hasbrouck, the witness offered, says: "I have had, as an experiment, abundant of brood raised by bees shut up on new comb and fed on refined sugar syrup, when they could not possibly get a grain of pollen from any source." This is given in the *Bee-Keepers' Magazine* for December, 1880, page 265.

This evidence closes on my part, unless Prof. Cook in his defense sets up a cross action and affirms new issues; in that event I may offer rebutting evidence. I hope that Prof. Cook will not allow the case to go by default on his part, nor attempt to prove an *alibi*.

Richford, N. Y., Aug. 26, 1881.

For the American Bee Journal.

Packing Bees for Winter.

R. L. AYLOR.

Bees in fine condition for winter; I did never have my bees in as fine condition for winter as I now have them, since I have been in the bee business. I have packed them with from 25 to 35 lbs. of fine honey all sealed over, and without any cider in the hive, as there were but few apples in this neighborhood for bees to store cider from.

My way of packing bees this winter is with 3 sticks laid across the frames, ¾ inch square, coffee sacks on top of the frames and sticks well fitted around, and two of the outside sacks on top of it, closing the entrances except about one and one-half inches for them to pass, as opportunity may afford, and for ventilation.

I packed some of my bees that way last winter, and they came out stronger than those that were packed with chaff and left on the summer stands through the whole winter. I only lost 3 colonies out of 21, and some of them starved in one corner of the hive, with plenty of honey to have wintered them, had it only turned warm enough for them to have changed their cluster to where the honey was; but it was too cold, and starvation was the result.

This was a very poor honey year, as the drouth burnt the white clover up just as it was about to bloom, and bees gathered no honey from that source; they did well on linden for about 12 days; the goldenrod was also burnt up the same as clover, but my bees stored enough of it for winter.

I have 18 colonies this fall; they gathered about 700 lbs. of surplus honey, and I have sold nearly all of it at 15 and 20 cts. per pound. It is no trouble for me to sell the extracted honey at my store for 15 cts. per lb, while comb honey drags at 20 cts. per lb. So next year I will run them for extracted altogether, as my custom demands the extracted in preference to comb at the same prices.

Waterloo, Ky., Nov. 14, 1881.

For the American Bee Journal.

Distinctive Features of Cyprian Bees.

W. J. DAVIS.

I have watched with much interest all that has been published in the JOURNAL about the Cyprian and Palestine bees, probably the more so from remembering the verdict of both American and European apiarists of the ill-favored Egyptian bees.

While I would be glad to see any improvement in our bees that will add desirable traits, either in the way of beauty, docility of temper, or increased stores, it is well to remind bee-keepers not to act rashly, and the precipitous haste with which the new untried varieties are scattered through the land, speaks more loudly of our enterprise than our discretion.

For the past 15 years I have been breeding the Italians exclusively, and have been breeding for the "coming bee." While I have not deemed it necessary to make public every step taken, or the ground gained, yet as the years have come and gone, they have left their lessons, and much of anticipated results of careful breeding. I have well nigh obliterated the vindictive temper of other years, so that my family and visitors can walk through my bee garden with safety. I open my hives without the use of smoke, and show the queen, combs and their contents to visitors, both male and female, and I do not recall a single instance of a visitor being stung the past season. Unlike one of your correspondents, I breed no queens from cross colonies.

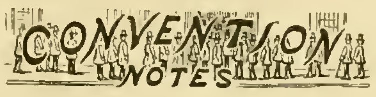
The proper age of queen to breed from, the strength and longevity of her worker progeny, are important factors in the calculation, as also length of tongue. The latter I determine, not by stretching the measuring line upon the ligula of a bee-corpse, but by the actual telling work done on the blossoms of red clover. It has been a matter of surprise to me, that any one who has visited fields of red clover when in bloom, in any locality where Italian bees are kept, should question their ability to secure honey from that source.

There is a vast difference in the intelligence of bees. Pure Italians more readily understand their surroundings, and accommodate themselves to circumstances, than black bees, as in artificial swarming, change of entrance to hive, or in uniting colonies, and in many other ways. They know when to commence, and when to cease rearing brood.

In your issue of Nov. 9, Mr. E. A. Thomas says "that his Cyprians have 4 and 5 combs of sealed brood and larvæ." That may do for his locality, but here in Western Pennsylvania, near 42° North latitude, I should say we want no unhatched brood in our hives on the first of November, and if I should find one of my colonies with the amount of brood he speaks of at that date, I would say they were in an abnormal condition, and the queen and bees of such colony lacking in bee intelligence.

Late breeding is claimed by some as a recommendation of the Cyprians. If it should prove to be one of their characteristics, I should consider it very much against them. With honey as the ultimate object of bee-keeping, I will here remind bee-keepers, that very late or excessive breeding at any time will not be traits of the "coming bee."

Youngsville, Pa., Nov. 17, 1881.



Local Convention Directory.

1881. *Time and Place of Meeting.*

Nov. 30—S. W. Wisconsin, at Platteville, Wis.
N. E. France, Sec., Platteville, Wis.

Dec. 8—Michigan State, at Battle Creek, Mich.
T. F. Bingham, Sec., Abronia, Mich.

1882.
Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.

25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.

April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.

25—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.

May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

California District Convention.

Met at Los Angeles, Cal., Sept 8, 1881, the President, J. E. Pleasants, in the chair.

The minutes of the last meeting were read and approved.

The following were admitted to membership: W. W. Bliss, S. N. Wickoff, C. N. Swenson, R. Hall and J. H. Book. Mrs. Wickoff was made an honorary member.

Mr. Haskell stated that he had not received the draft of the Constitution and By-Laws from the former Secretary, and on motion, Mr. Levering, as the committee, was granted one day further time.

Mr. C. N. Wilson moved to elect officers on Friday and to hold the meetings annually during the fair week, instead of semi-annually. Carried.

Mr. Haskell's report as committee on quotations of extracted honey was read and placed on file.

The financial report was submitted, showing $1 due the Treasurer.

Adjourned to 10 a. m.

SECOND DAY.

Called to order by the President; the Secretary being absent, J. W. Wilson was elected Secretary *pro tem.*

C. N. Wilson moved that the Secretary be instructed to have circulars printed relative to strained and extracted honey, including the report of Mr. Haskell, and furnish each of the leading papers of the Pacific Coast with a copy.

The report of the Committee appointed to draft a law relative to the protection of bees from foul brood, was read and adopted.

The constitution and by-laws were criticised, and a committee consisting of J. W. Wilson, C. N. Wilson and Robert Hall was appointed to draft new ones, embodying the main ideas of the old ones, but amending where defective, and to report to the next meeting.

Adjourned to 2 p. m.

AFTERNOON SESSION.

The President called the meeting to order and Mr. Levering moved to postpone the election of officers until to-morrow morning. Carried.

J. W. Wilson moved to postpone all essays until to-morrow a. m. Carried.

The Association authorized Mr. N. Levering to correspond with European honey dealers relative to establishing agencies in Los Angeles, and other honey producing counties of Southern California, for the purchase and sale of honey.

Moved by Mr. Swenson, and carried, that a copy of the above be sent to the *British Bee Journal* for publication. Adjourned to 10 a. m.

MORNING SESSION—SEPT. 10.

President Pleasants called the meeting to order, and the minutes of previous sessions were read and approved.

The memorial of the Board of Trade, with bill for the prevention of adulteration of food and drugs, was presented by Mr. Levering, who moved that a copy of such be sent to each of the County Associations of Southern California as far as they will go.

President Pleasants then delivered his annual address, as published in the BEE JOURNAL for Nov. 9, on page 357, for which he was accorded a vote of thanks. It was ordered to be offered for publication in the *Semi-Tropic* and other city papers.

The election of officers resulted as follows:

J. E. Pleasants, President; J. S. Harbison, J. Anderson, J. W. Wilson, Wm. Muth-Rasmussen, R. W. Wilkins, Frank Flint, S. N. Wickoff and Mrs. E. W. Steel, Vice Presidents; W. W. Bliss, Secretary; Robert Hall, Treasurer. Adjourned to 1:30 p. m.

AFTERNOON SESSION.

President Pleasants called the Association to order, and J. W. Wilson asked how many colonies of bees could be kept in one place to advantage?

R. Bailey gave his experience from 1868 to the present time; he found that he obtained about as much honey from 200 colonies of bees as he did from 400, on the same grounds.

W. W. Bliss thought that 75 colonies was enough to be kept on one section of land.

Mr. Wickoff said they had not enough bees yet to over-stock his vicinity.

Mr. Levering said it was an unsettled question; he doubted the over-stocking theory, especially in this country.

C. N. Wilson thought it depended on the locality; he was of the opinion that 150 colonies to the square mile, was enough on San Fernando range.

An essay was read by J. W. Wilson, on strained and extracted honey, for which he received a vote of thanks from the Society, and was requested to furnish a copy to the *Semi-Tropic California* for publication.

C. N. Wilson proposed a discussion on honey-producing flowers, which was participated in by himself and others; he recommended the planting of the black cassia, as it blooms the second year, and is a good honey-producing tree. He next recommended the planting of the blue gum, as his observations have convinced him that it is a large honey-producing tree, and not injurious to the bee; it blooms very early in the spring; he also recommended the planting of sweet corn, and next mignonette. He exhibited a specimen of the Dortlesia, an insect that is thought to be a formidable enemy to the orange tree and to other honey-producing plants.

Mr. Hall recommended the planting of sunflowers.

C. N. Wilson said that the seeds are good for chickens, and the stalks make good kindlings.

Mr. Bailey said he had good success with buckwheat and mignonette; he gave the latter the preference.

Mr. Anderson said the wild horehound, from what he had seen, was a good honey-producing plant, and easily raised; he had also sown buckwheat in July, August and September; none produced honey except that sown in September.

C. N. Wilson thought that we might give it a trial.

Mr. Bliss inquired if any one had tried white mustard?

Mr. Wickoff said that he had this year, with good success.

C. N. Wilson recommended planting water melons, as the blossoms and fruit are both good for bees. Several others corroborated the same.

Mr. Bliss exhibited his comb foundation mill and explained its use, which was quite interesting.

C. N. Wilson offered the following resolution, which was adopted:

Resolved, That a vote of thanks be tendered the Council of the city of Los Angeles, for the use of their hall during the present session of the District Bee-Keepers' Association.

Adjourned to meet at the call of the President. W. W. BLISS, *Sec.*

Michigan Bee-Keepers' Association.

The 13th annual meeting of the Michigan State Bee-Keepers' Association, will be held in the City Hall at Battle Creek, on Thursday and Friday, the 8th and 9th of December. The time and place makes it convenient for those who wish to attend the annual meeting of the State Horticultural Society, which convenes at South Haven, the three previous days of the same week. The Michigan Central, Chicago & Grand Trunk, Detroit, Grand Haven & Milwaukee, and the Grand Rapids & Indiana Railroads will sell tickets to members at excursion rates. To secure reduced fare, all must have certificates, which can be furnished by the President, A. J. Cook, Lansing, Mich. Arrangements are made with hotels for fare at from 80 cts., to $1 per day.

The meeting promises to be the largest and the best ever held. All bee-keepers are cordially invited to be present. Bee-keepers are requested to bring samples of honey, apparatus, and articles of interest to apiarists. The following programme has been arranged:

THURSDAY FORENOON.

"Italian bees," S. K. Marsh.

"The new bees," D. A. Jones.

"Shall we continue to import queens?" Discussion opened by A. B. Weed.

AFTERNOON.

"Bees and grapes," H. D. Cutting

"Mistakes of bee-keepers," Dr. E B. Southwick.

"Honey as food," Dr. J. H. Kellogg.

"The future honey market," T. G. Newman.

EVENING.

"Crumbs from the table of the National Convention," President's address.

"Adulteration," Dr. J. H. Kellogg.

"Apiarian implements," Hon. A. B. Cheeney.

FRIDAY FORENOON.

"Rearing and selling queens," W. Z. Hutchinson.

"Foundation," James Heddon.

Address, A. I. Root.

AFTERNOON.

"Foul brood," C. F. Muth.

"Extracted honey," Chas. Dadant.

"Hints," T. F. Bingham.

Election of officers and reports.

EVENING.

"Wintering," O. O. Poppleton, D. A. Jones, C. F. Muth, and others.

Miscellaneous questions.

A. J. COOK, *Pres.*
T. F. BINGHAM, *Sec.*

☞ The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.

N. E. FRANCE, *Sec.*, Platteville, Wis.

CLUBBING LIST FOR 1882.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1882, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage is prepaid by the publishers.

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T. G. Newman)	$2 00..	
and Gleanings in Bee-Culture (A. I. Root)	3 00..	2 75
Bee-Keepers' Magazine (A. J. King).	3 00	2 60
Bee-Keepers' Instructor (W. Thomas)	2 50..	2 35
The 4 above-named papers.......	4 50..	4 00
Bee-Keepers' Exchange (J. H. Nellis)	3 00..	2 75
Bee-Keepers' Guide (A. G. Hill)......	2 50..	2 35
Kansas Bee-Keeper..................	2 30..	2 15
The 7 above-named papers.......	6 30..	5 50
Prof. Cook's Manual (bound in cloth)	3 25..	3 00
Bees and Honey, (T. G. Newman) ..	2 40..	2 25
Binder for Weekly, 1881...............	2 85..	2 75
Binder for Weekly for 1882..........	2 65..	2 50

SELECTIONS FROM OUR LETTER BOX

Bees in Good Condition.—I now have 25 colonies of bees in good condition for winter. The BEE JOURNAL just suits me. JOHN FERSTEL.
Inglefield, Ind., Nov. 12, 1881.

Bees Show Signs of Dysentery.—My bees are now fixed for their winter quarters on the summer stands, but several show signs of dysentery which I cannot account for. I believe that the cause is this: Owing to the drouth of this season and the scarcity of honey producing flowers, the bees kept up a continual hum over the broken and mashed melons, which were scattered throughout the country by thousands. This district is becoming famous for melon-raising, and I am fearful it will prove disastrous to the bees. One station alone, near me, shipped 550 cars this season. Why is it that bees consume such a vast amount of water during a scarcity of honey? I have made a note of this on several occasions. I am located near a lake or marsh, which is under water the year round. It is filled up with flag, weeds, etc., which do not produce honey. Is there a honey plant or seed that can be sowed in spring or fall, that will germinate and grow in the water? I believe I have fertilization in a nutshell. Will test it thoroughly this coming season. J SMITH HEAD.
Benton, Mo., Oct. 31, 1881.

[Your surmise regarding the cause of dysentery is undoubtedly correct, and we see no way to obviate the difficulty, unless you extract closely at the close of the melon season, and give the bees a winter supply of good honey or sugar syrup. It may be that during a scarcity of honey the bees use more water in thinning the feed for larvæ, but we doubt it. On your marshy ground try *hydro-piper*, known also as marsh-smartweed and blackheart. We do know that it will grow in standing water, but along the Illinois, Ohio and Mississippi river bottoms, and other places subject to frequent and protracted floods, it abounds largely. It gives a generous though late supply of beautiful amber honey. Plant it in the fall. If it will not fill the want we know of nothing that will. Why not give the public your method of fertilization, and let them experiment with it too; they might remedy defects you would overlook?—ED.]

Bereaved.—You will see by the following notice from one of our county papers, that I have recently passed through a dark cloud of affliction. No, I cannot say that I have passed through it, for it hangs like a pall over our home now.

"Mrs. John H. Martin died quite suddenly after a short illness, of heart disease. The funeral services were held in the Baptist church, Monday, Oct. 31. Rev. Mr. Ernst, of the Congregational church, at South Hartford, of which she was a member, officiated, assisted by Revs. A. A. Watson and R. Campbell. She was held in high esteem by all who knew her, and her death will be mourned by a large circle of relatives and friends. Her social and amiable qualities have endeared her to her many friends in this vicinity. She will long be remembered as a zealous and devoted Christian—a warm and genial friend, and a loving and faithful wife."

My wife was sick barely 2 weeks, when death relieved her of her sufferings, and the pure Christian passed across the river where all is peace and joy. J. H. MARTIN.
Hartford, N. Y., Nov. 12, 1881.

The Chicago Convention and Honey Report.—I regret very much my inability to attend the Chicago Bee Convention, in which I purposed to exhibit some of the best of my prize queens and their progeny, but the constant rain and cold, cloudy weather prevented. Is not October entirely too late in the season for such exhibitions? Why not have the next some time in September of next year? My report for the year 1881 is as follows: Being away from home last fall and winter, my bees were left upon their summer stands, and all died, 35 in number. In April, I purchased one imported colony, and 8 others. From these 9, I have increased to the number of 52 colonies this fall, all my 35 old hives being refilled with bees, giving them the old combs from last year, and 8 colonies over. I have also taken 440 lbs. box honey, and 120 lbs. extracted honey, a total of 560 lbs. This gives an average of 62¼ lbs. per colony, for each of the nine that I commenced with. E. L BRIGGS.
Wilton Junction, Iowa, Nov. 8, 1881.

Honey Cake.—Having noticed in the AMERICAN BEE JOURNAL a request for a recipe for honey cake, I send you the following; the boys pronounce the cake made by it excellent: One pint of flour, 1 tablespoonful of butter, 1 teaspoonful of soda, 2 teaspoonfuls of cream tartar, and honey sufficient to make a thick batter; spread about an inch thick, and bake in a hot oven.
A SUBSCRIBER.
Louisiana, Nov. 15, 1881.

Apiary Record Book.—I endorse Mr. E. A. Thomas' letter in the BEE JOURNAL, to the effect that you ought to get up a small, handy book to keep a record of each hive and for use generally. It strikes me as a capital idea.
FREDERICK C. BOWDITCH.
Boston, Mass., Nov. 14, 1881.

Unexpected Good Luck.—After 78 days of the most fearful and destructive drouth ever witnessed by the oldest man now living in this State, I write you a few notes by way of report from this section of the bee world. Thank the Lord! if he does afflict us sometimes, he always blesses us at his own good time. I came through the long, cold and dreary winter with 6 colonies as weak as ever pulled through by nursing, feeding and warming. Soon as peach and apple bloom came fully out and spring fairly opened, a most incessant rain set in, that entirely destroyed the poplar and most of the white clover. Then came the linden bloom which was rich and abundant, but lasted only about 5 days. On the 29th of June set in the unparalleled drouth of 78 days. During the month of May I made 4 artificial swarms, introduced Italian queens, etc., making my number 10 colonies. They were all full and booming with young bees, brood and eggs, when the drouth came on and cut everything off. My buckwheat just literally burned up; one acre did not produce half a grain of honey. I examined a few of my best colonies the last of July and first of August, and did not find 5 lbs. of honey in the whole apiary. I shut up the hives, shook hands with them, saying "Good-bye, 'Liza Jane!" Yes, right there and then I went into "Blasted Hopes," as A. I. Root would say. But glorious! I found them full up to-day. I had to put on another story with frames, to give them more room. You never saw bees work stronger in May and June. They lie out and roar all night, just as they do in the flow of poplar and linden. I inclose a specimen of the wonderful, little, insignificant bloom that has done this wonderful thing! We call it aster. There is the greatest profusion of it on all the glades and pasture lands. The bees get something from smartweed and goldenrod, but this little plant is a world-beater. Heretofore the bees have not gathered much from it, but this season it is our great stand-by—our salvation for the bees. Please give me the name of the flower. I could extract a quantity of honey, but am fearful from last winter's experience. Grass and pastures are fine, and the fruit trees are taking a second growth. If frost holds off 20 days our bees will be ready for winter, and be in better condition than we ever had them since I can remember. J. A. BURROW,
Santa Fe, Tenn., Oct. 4, 1881.

[The flowers sent are asters. While in attendance at the National Convention, Oct. 5-7, we observed large quantities of asters in bloom through the central portions of the State of Kentucky, and a copious flow of honey was the general report.—ED.]

The Drouth and Feeding.—I had 10 colonies in the spring, which increased by natural swarming to 23, and gathered over 300 lbs. of comb honey. The season was pretty good for a short time, but we have had such a severe drouth that bees have not done anything since the middle of July; I have been feeding inside the hives since the middle of September, and have them in pretty good condition for winter. On looking over one of my young colonies about the middle of August, I found it had a fertile worker, and seeing an article in the BEE JOURNAL of Aug. 10, by E. A. Thomas, explaining how to get rid of fertile workers, I tried it and succeeded. They have reared themselves a queen from brood I gave them, and are in good condition now, with brood in all stages. With the most, or like all, I must say that I like the BEE JOURNAL very much.
A. RICKENBACHER.
Gehenna, O., Nov. 14, 1881.

Dividing Colonies Late in the Season.—At some distance from home, lately, I was asked by a gentleman to see his bees. On doing so, I found that he had allowed some full colonies to be divided, each half colony being placed on about two frames of their own comb, containing 2 to 3 lbs. of honey and a little brood, with frames of comb foundation to fill the remaining space. This was done about the first week in October, on the theory that by feeding the article called diamond drip, the half colonies would build up to proper strength for wintering. I saw these bees about 10 days after they were divided, when some had deserted the hives, some had queen cells, and in a few cases as much as one frame of foundation was drawn out, and about half filled with sealed brood. Where the fed article was sealed it had the appearance of light comb honey. I advised the gentleman to form colonies for winter by uniting the fragments that were left, but I did not know what to say about leaving them to depend mainly upon the diamond drip for winter supplies. If you will inform us on this point, and also tell us what you think of dividing as late as Oct 1st, under any circumstances, you will confer a favor. J. E. PITMAN.
Marlboro, Va., Nov. 2, 1881.

[If diamond drip is made from pure cane sugar, bees will winter on it very nicely; if it is a glucose fraud, we would not trust it. We can see nothing to gain, and everything to lose, by dividing so late. Possibly the portion containing the queen might survive the winter; but we do not think it probable that the queenless parts can rear queens in time for winter reinforcements. Under no circumstances would we divide later than August. —ED.]

Oregon for Bees and Honey.—After a prosperous journey of 17 days, I am here in a mild climate with my family, where I expect to try my old profession of keeping bees. I have seen very few in the State, as yet. I have not talked with any bee men yet as I have just arrived. When I look around some, I will say what I think of it as a honey State.
DAVID RICE.
Albany, Oregon, Nov. 7, 1881.

Fertile Worker.—In July I found my old Italian colony queenless, with plenty of bees and honey, but no eggs or larvæ. I obtained a tested Palestine queen, and introduced her on the 28th. She commenced laying on the 3d day, and on the 20th of Sept. I found 13 queen cells, all capped, but no eggs, a few large larvæ, thousands of brood ready to hatch, and the old queen gone. I took off all the queen cells, for I had no drones in my apiary. The hive was crammed full of beautiful Palestine bees. Do you think the old queen would have swarmed out and left this late in the season? On the 1st of October I obtained another queen, and when I examined the hive before introducing her, I found, to my surprise, thousands of eggs, with from 1 to 8 in a cell. I searched through 4 times, but failed to find the egg-layer, so I placed a new hive on the old stand, setting the old hive back about 2 feet. I then smoked them heavily, took the frames and combs out, brushed the bees all off into the old hive, and put the combs and frames into the new hive. I filled the old hive with empty frames, except one comb which had no eggs in it. All this time the bees were swarming back to the new hive on the old stand. I then moved the old hive away some 30 feet, and by dark all the bees had returned to the new hive except about a pint, which were clustered on the comb in the old hive. Next morning I found the comb (6x4 inches) nearly filled with eggs. I dipped the comb, bees and all in a tub of water, and killed all. On the 3d of October I introduced the queen. She commenced laying the 3d day after, and the bees then cleaned out all the fertile worker eggs, and her brood is now about all hatched. She is now retired for the winter.
R. M. OSBORN.
Kane, Ill., Nov. 5, 1881.

[It is not probable the old queen swarmed out so late, and left the hive "crammed full" of bees.—ED.]

Bees In Good Condition.—The old colonies are in good condition; late swarms, that are not looked after, will die before spring. I do not think there is within 75 per cent. of the colonies in this county there were four years ago. I am sold out to 15 colonies in good shape; sold 80.
I. H. SHIMER.
Hillsboro, Ill., Nov. 17, 1881.

Tulip Tree Plants.—Please answer the following through the BEE JOURNAL: How many pounds each of catnip, figwort and motherwort are required to sow an acre, when sown together as recommended by W. T. Stewart, in the BEE JOURNAL for Oct. 19? 2. Where can I get the tulip poplar in quantities? We are always anxiously looking for the next number of the BEE JOURNAL, and very highly prize it; cannot see how any one that keeps bees can afford to be without it.
J. E. PRYOR.
Arbor Hill, Iowa, Nov. 11, 1881.

[1. If sown broadcoast, one pound each will be a great abundance; if in drills, much less. The figwort will be best sown in forcing-beds and transplanted in rows.

2. We do not know. Parties able to fill orders, will probably advertise in time to make arrangements for spring planting.—ED.]

☞ *New* subscribers for the Weekly BEE JOURNAL, for 1882, will have all the remaining numbers for 1881 *free* from the time the money is received at this office. Therefore, the sooner they subscribe for it, the *more* they will obtain for the $2.

☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

Special Notices.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

◆

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆

☞ Articles for publication must be written on a separate piece of paper from items of business.

◆

Photographs of prominent Apiarists—Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

◆

☞ When changing a postoffice address, mention the *old* as well as the new address.

◆

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

An Agreeable Dressing for the Hair, that will stop its falling, has been long sought for. Parker's Hair Balsam, distinguished for its purity, fully supplies this want. 44w4

◆

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

◆

Premiums.—For a club of 2, *weekly* we give a copy of "Bees and Honey;" for a club of 5, *weekly*, we will give a Cook's Manual, a Bee-Keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year *free*. It will pay to devote a few hours to the BEE JOURNAL.

◆

Women are Everywhere Using and recommending Parker's Ginger Tonic, because they have learned from experience that it speedily overcomes despondency, indigestion, pain or weakness in the back and kidneys, and other troubles peculiar to the sex.—*Home Journal*. See adv. 44w4

◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

Why suffer such unspeakable tortures? Rheumatism has been conquered. Kendall's Spavin Cure is the victor. See advertisement. 44

◆

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

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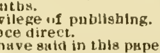

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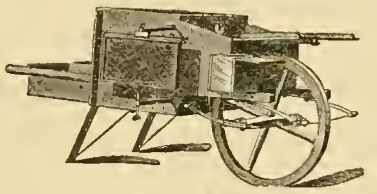

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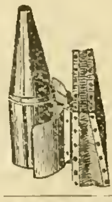

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Honey, as Food and Medicine, by Thomas G. Newman.— This pamphlet discourses upon the Ancient History of Bees and Honey, the nature, quality, sources, and preparation of Honey for the Market; Honey as food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, etc; and Honey as Medicine with many useful Recipes. It is intended for consumers, and should be scattered by thousands, creating a demand for honey everywhere. Published in **English** and **German.** Price for either edition, **6c.**; per dozen, **50c.**

Wintering Bees. — This contains the Prize Essays on this subject, read before the Centennial Bee-Keepers' Association. The Prize—$25 in gold —was awarded to Prof Cook's Essay, which is here given in full. Price, **10c.**

The Hive I Use— Being a description of the hive used by G. M. Doolittle. Price, **5c.**

Extracted Honey; Harvesting, Handling and Marketing.—A 24-page pamphlet, by Ch. & C. P. Dadant, giving in detail the methods and management adopted in their apiary. This contains many useful hints.—Price **15c.**

Practical Hints to Bee-Keepers, by Chas. F. Muth; 32 pages. It gives Mr. Muth's views on the management of bees, Price, **10c.**

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Chicken Cholera, by A. J. Hill.—A treatise on its cause, symptoms and cure. Price, **25c.**

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OLDEST BEE PAPER IN AMERICA

ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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American-Italian Bees in Japan.

Mr. R. Mayerhoeffer, Taschivitz, Austria, sends us the following translation of a letter received by him from Japan:

> Since 1877 the Italian bees are imported to this country from America, and manipulated in a hive of American style. The characteristics of these bees are: more vigorous, larger in size, and the amount of honey gathered is much greater than from our native bees. Their culture is spreading year after year to every district in Japan adapted to bee-culture. I am sorry to say that the Italian bees are often devoured by the chimney swallows while on their flight. I think this is caused by their large size.

This country has furnished Italian bees for Japan, New Zealand and Australia, and it only awaits our perfection of the "coming bee," to exchange queens, bees and compliments with our Italian friends. Last spring we were consulted by a Swedish gentleman in the selection of a sample hive, sections, foundation, etc., for introduction into Sweden, and but a little time will elapse ere our bees and apiarian implements will be familiar objects throughout all Christendom.

The United States have shipped many tons of extracted honey to China and Japan, where it has found a ready market at fair prices, and been a popular article of consumption with the better classes. Properly developed, the Celestial Empire will furnish a market for every pound of honey that can be produced on our Pacific coast, nor will the introduction of American-Italian bees into China and Japan injure the traffic, but will, rather, have a tendency to stimulate it.

Extravagant Economy.

The above reflection was suggested to us not long since, when we saw a large lot of beautiful honey put up in all sorts of odds and ends, intended to represent sections. The apiarist evidently had these sections on hand, or bought them at half-price, and in a spirit of wasteful frugality determined to use them rather than pay a fair price for a neat, attractive section. He undoubtedly lost enough time in assorting and arranging them to have paid for a good article. His economy cost him just four cents per pound on his honey.

It is extravagant economy to delay ordering hives, sections, foundation, etc., till the last moment, or till they are needed for use, for frequently a dealer finds it impossible to fill all orders promptly when they are held back till the last moment, and then accompanied with the parenthetical request, "Send at once, I want it bad." By ordering in a dull time, better figures can generally be obtained, more satisfactory work will be performed, and you can take advantage of your odd time to prepare them for use, and to remedy defects, if any exist. Very frequently a few days delay occasioned by this questionable economy will result in a light honey harvest, or the loss of a few swarms of bees.

It is extravagant economy to delay providing pasturage for your bees till a season of dearth comes on, or until you are painfully persuaded your locality is over-stocked with bees. By taking time by the forelock, nature will assist you in extending your pasturage when most needed in the future, and will furnish the seeds for doing so free of charge.

It is frequently extravagant economy to buy the lower priced articles, simply because they are sold for less money. The cheapest in price are often most expensive in experience.

If you expect to be a solicitor of public patronage of any kind, it is extravagant economy to practice a "masterly inactivity" and wait for the public to discover your merits. If you have more bees than you wish to keep, let the world know it through a liberal advertisement. If you have a really meritorious hive you wish to supply to bee-keepers, "push it;" advertise the hive and its merits. If you are a manufacturer or dealer in supplies, let those who read papers devoted to your specialty know it. If you expect to rear queens and bees for the market, provide yourself with good stock and place yourself prominently before the public as ready to accept its favors, and return an honest equivalent therefor. Do not boast of more than you expect to do, but certainly tell *all* you can perform. It is extravagant economy to wait for the busy season before you begin advertising, for your business will never be brisk till you are known. Again, during a dull season readers have more time to ponder over your advertisement, to correspond with you, and to form an estimate of your business integrity.

During the past autumn we have circulated fifty thousand copies of a Special Edition of the BEE JOURNAL, at fairs, conventions, etc., among those who have heretofore read no paper devoted to bees and honey production in the new and improved methods. We are now daily receiving clubs of subscriptions from these persons, and have been for months past. These will all have to be supplied with bees, queens, hives, sectional boxes, comb foundation and all the necessary appliances for the apiary, during the next few months, and most of them know nothing of dealers in these articles, except what they will glean from our columns in future. Here is an inviting field for supply dealers to occupy, if they advertise early.

☞ On the ground that she married a foreigner, in violation of the will of the Duchess of St. Albans, Baroness Burdett-Coutts-Bartlett, President of the British Bee-Keepers' Society, has been compelled to surrender her half-interest in the banking-house. This takes from her income about $700,000.

☞ The editor of the BEE JOURNAL expects to attend the Michigan State Convention at Battle Creek, Mich., on Dec. 8, 1881. From present indications it will be an interesting meeting.

☞ We have received sufficient encouragement to now definetely promise to get up the apiary record book that has been so generally called for. We will give particulars and prices next week.

Selling Honey for Cash.

As another evidence of honey being a staple article, Mr. House, on page 380 of this BEE JOURNAL says:

> "We have had the pleasure of seeing men traveling the country buying for cash. This, no doubt, is owing to the earnest work and diligent effort on the part of the heavier producers in this State to concentrate our honey, and we are now reaping our reward."

We do not quite agree with Mr. House in some details of his article, but on the whole it is a valuable and timely production.

Yes; "earnest work" will be rewarded, in every direction while we are endeavoring to make honey *a staple article*. It is only a question of time when traveling men will be scouring the country, buying all the honey that can be produced, *for cash*. Our faith in the future of honey as a staple article, like butter, cheese and eggs, is strong and invincible. To this we have devoted our time, energies and means, and we are fully aware that all *our* "earnest work," as well as that of our co-laborers, will be rewarded. Let us all be wide awake—for "the day of prosperity" for our chosen avocation is just dawning.

Melting Combs into Wax.—Mr. Jos. Sayler, Fairmont, Neb., writes: "Will you please to give the best method of making old comb into wax, where parties have no extractor?"

Warm your combs slightly, so as to press into solid, compact balls, fill a coarse sack with these balls, put all in a boiler, and nearly fill with water, first having put strips of wood in the bottom of the boiler to prevent burning; place heavy weights on the bag to keep it down and press out the wax fast as melted, which will rise to the top, and must be skimmed off and put into a vessel for caking. If there is much sediment in the wax, it can be melted again without water, when the dirt will settle at the bottom. Many use about a tablespoonful of sal soda to five gallons of water in melting the comb.

☞ We are sometimes asked who our authorized agents are? Every subscriber is such an agent; we have no others, and greatly desire that each one would at least send in one new subscriber with his own renewal for 1882. The next few weeks are the time to do this. We hope every subscriber will do his or her best to double our list for 1882.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

The Effect of Bee and Honey Shows.—A correspondent in the London *Horticultural Journal*, says:

> I can state without fear of contradiction that never in the memory of man has there been such a desire to keep bees as at the present time. In this district people have been so encouraged in bee-keeping as taught through the tents, that the agents in the north of Ireland have had to repeat their orders again and again for bar-frame appliances, as Messrs. G. Neighbour & Sons could testify. Further, new manufacturers have started in all parts of the country; and besides all this, I have almost daily applications for instructions concerning the bar-frame hive. As regards sectional supers, nothing could be more taking than they are, and those who exhibit them at shows are pressed all day to dispose of them, while on the other hand, few "spear the price" of a glass super 21 lbs. at 2*s.* per lb., or a big, straw skep filled with honey, brood, bee-bread, etc.

* * *

Honey at the Arkansas State Fair.—The Little Rock *Democrat* gives the following list of premiums awarded for honey at the State Fair:

> Best package comb honey in the best marketable shape, 5 lbs. or more, W. W. Hipolite, Duval's Bluff, $5.
>
> Best package extracted honey in the best marketable shape, 5 lbs. or more, Stacy Pettit, Fort Smith, $5.
>
> Best crate of honey in comb, 25 lbs., W. W. Hipolite, Duval's Bluff, $20.
>
> Best colony of bees, movable comb hives, F. J. Young, Little Rock, $10.
>
> Best 5 lbs. beeswax, Mrs. E. H. Chamberlain, Little Rock, $2.
>
> Best machine for extracting honey, Stacey Pettit, Fort Smith, $2.
>
> Best bee hive, W. W. Hipolite, Duval's Bluff, diploma.

* * *

Bee-Culture as a Business.—Mr. G. W. Demaree, gives his views on this subject in the *Farmers' Home Journal*, as follows:

> Bee-culture is yet in its infancy. It is only about 20 years ago the Rev. L. L. Langstroth, by his invention of the movable frame hive, laid the foundation of scientific bee-culture, and soon after Mr. Wagner commenced the publication of the AMERICAN BEE JOURNAL, the first paper devoted exclusively to bee-culture ever published in this country. With this state of things, one would suppose that the business would have moved right along, but not so. People had been educated to look on bee-culture as a "little business," and called it "fussing with bees," till ignorance and superstition had taken too deep a hold to be rooted out so easily. The paper was so poorly supported at the start, that the enterprise was abandoned for a time, but was revived about the year 1865 or 1866, and after the death of Mr. Wagner (than whom no man was more highly esteemed among the bee fraternity), the paper fell into the hands of Thomas G. Newman, whose learning and enterprise soon made it a great success. This paper is now issued weekly, and is as ably and accurately edited as a majority of the best papers in the country. There are now 8 or 10 papers published in the interest of bee-culture, while nearly all the agricultural papers begin to realize that the people want information on this subject. And doubtless this class of papers hereafter will give a due part of their space to the subject of bee-culture, and thereby many persons will be reached who never see a bee paper.
>
> In an age like the present, when universal peace prevails, and men are multiplying rapidly on the earth, new occupations, new methods of earning an honest living must necessarily be encouraged. Millions of pounds of precious nectar secreted by the honey producing flora, goes to waste every year for the want of the busy workers to collect it and prepare it for the use of man, and for the want of skillful apiarists to control and direct the busy workers. Let no man say he can find nothing to do to get a living.

* * *

How Cyprian Bees Behave in England.—The editor of the *British Bee Journal* quoted some American complaints about the ferocity of Cyprians, and adds:

> The last extract coincides exactly with our experience, and we can go even further. On several occasions bees that have crept between the folds of our clothing (which they are very prone to do), have, when liberated at night, attacked us by gas-light, when other bees would have been only too glad to escape if it were possible to do so.

* * *

Care of Surplus Honey.—Prof. A. J. Cook in the New York *Tribune*, writes as follows on this important subject:

> Last evening, Mr. Samuel Hilbert came to me and dolefully asked: "What shall I do with my honey? It has all soured." "You, an old bee-keeper, mean to say that you have put your honey in a cellar or other damp, cool place? Didn't you know better?" "Yes, but when I took off my beautiful white June honey, I was driven with work, and so hurried it into the nearest place, which happened to be the cellar." This incident furnishes a text for an opportune article on the care and management of surplus honey. The wise bee-keeper will remove his comb honey just as fast as the bees cap it over. Let it form the highway of travel for the bees but for a few days, and its beauty is gone. Take it off as soon as it is capped and it will rival the snow in whiteness, and must tempt irresistibly the buyer. Secondly, put the honey in a dry, warm room. If the temperature is even 100° F. it will be all the better. In such a room the honey will not gather moisture, or "sweat," as it is called, and there will be no trouble from souring. In winter, the warmth keeps the comb from becoming brittle, and may be more safely handled.
>
> Extracted honey should not only be kept in a dry, warm room, but in open vessels covered with cotton cloth, so the moisture, in case it was extracted before it was thoroughly cured, would escape. If this precaution is surely heeded, there is little (my experience says no) danger in extracting before the honey is capped over, beginning just as the capping is commenced. This saves no little time and labor. If extracted honey is kept in a temperature of from 80° to 100° F. it will not granulate. Granulation, however, does not injure the honey; in fact, it is one of the best tests of its purity. To reliquefy candied honey, we have only to heat it. If we are careful not to raise the temperature above 180° F., it will lose none of its excellence. To do this easily, place the crock or can containing the honey in a vessel of water, placing something on the bottom of the vessel so that the crock may not touch the bottom and become too much heated. Now if the water in the vessel is not permitted to boil, there is little danger of the honey being injured.
>
> Care should be taken that the bee-moth does not injure the comb honey after it is removed from the hive. If eggs are on the comb, they will hatch and possibly ruin the honey. Their work is detected in the little particles of wax seen on the face of the comb. The safe way is to place all the comb, one week after its removal from the hive, when all the eggs will be hatched, in a close box or in bottomless hives, placed one above the other, then to a smoker in full blast add a tablespoonful of sulphur, and place the fuming smoker in the top of the box or in the upper hive; as the sulphurous fumes are heavier than the air, they will roll to the bottom and suffocate the worms. This is cheaply done and may save much loss and disappointment.
>
> Let the honey be thoroughly graded as it is put on the market; let it be in clean crates, so made that every passer-by shall be enticed, as he sees through a glass not darkly, the tempting honey; let there be no possible chance for the honey to leak, and disgust the dealer, and always see that every grocery-man in the vicinity has a supply of this most beautiful and wholesome article of food constantly on hand. The best way to manage sour honey is to heat it till it boils, which kills the plant-germs which cause the fermentation; then feed it back to the bees. In the process of restoring the honey seems to have regained its previous excellence.

* * *

Mitchell's Suit Dismissed.

The *Indiana Farmer* gives the following information concerning the suit which N. C. Mitchell instituted against it, placing the damages at $5,000, and which is now dismissed:

> In March, 1880, a correspondent wrote us in reference to a certain hive on which a patent was claimed by the above party, or his agents, and the threatened prosecution for the use of division boards. We answered that the hive being offered was not the original one on which a patent had been granted, and that any one found advocating the same would bear watching to say the least. A division board was public property and could be used by any one; that the party alluded to had been exposed frequently through the various bee journals, hence the suit. We asked for evidence of any crooked dealings on the part of these parties, and the amount of evidence which has been sent us freely confirms our statement. We wish to return thanks to our many friends all over the land for their kindness in furnishing the preponderance of evidence. We do not wish to make war on any one, but we believe it our duty to protect our readers as far as possible from all kinds of swindling schemes, and we propose to do it so far as is in our power, let the cost be what it may.
>
> The patent bee-hive business has been a curse to the bee-keeping interest all over the land, and since the movable frame is now public property we strive to convince all beginners that they do not need any kind of a patent hive. Most of them are very complicated, and have many useless appendages, defeating the very object for which they were intended. They look very attractive and work nicely at a fair, but with a colony of bees in them, all their movable and adjustable parts become glued firmly together with propolis, and to loosen them jars them and makes the bees hard to control. Beginners, especially, should adopt some simple form of a movable frame hive, and use them until they become familiar with the nature of the bees, and they will soon learn that the less complicated the hive the more satisfactory the results will be.

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums. Their own subscription may count in the club:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

Or they may deduct 10 per cent in cash for their labor in getting up the club.

A Religious Newspaper.

We desire to call the attention of our readers to one of the greatest newspapers of the age—one that secures the best writers in this country and Europe, regardless of expense; has the best and fullest book reviews of any paper in the country; has able articles upon financial subjects; has departments edited by specialists and devoted to fine arts, music, science, religious intelligence, missions, school and college, news of the week, hymn notes, the Sunday-school, legal and sanitary questions, Biblical research (something that cannot be found in any other newspaper in the United States), farm and garden, insurance, weekly market reports, etc., in fact, a newspaper fully suited to the requirements of every family, containing a fund of information which cannot be had in any other shape, and having a wide circulation all over the country and in Europe. We refer to *The Independent*, of New York. "The largest, the ablest, the best." See advertisement in another column, and send a postal card for a free specimen copy.

* * *

☞ *New* subscribers for the Weekly BEE JOURNAL, for 1882, will have all the remaining numbers for 1881 *free* from the time the money is received at this office. Therefore, the sooner they subscribe for it, the *more* they will obtain for the $2.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL,
Monday, 10 a. m., Nov. 28, 1881.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. We quote light comb honey, in single comb boxes, 18@22c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@22c.

AL. H. NEWMAN, 972 W. Madison St.

NEW YORK.

HONEY—The supply is full, and trade is lively. We quote as follows: White comb, in small boxes, 18@22c; dark, in small boxes, 15@17c. Extracted, white, 10@11c.; dark, 7@9c.

BEESWAX.—Prime quality, 21½@23c.

THORN & CO., 11 and 13 Devoe avenue.

CINCINNATI.

HONEY—Is in good demand here now. I quote: Good comb honey, in sections, is worth 18@20c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

BOSTON.

HONEY.—1-pound combs are a desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 21@22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX—Best light 23@25c.—*Philadelphia Merchants' Guide.*

ST. LOUIS.

HONEY.—Steady, with sale for all offered at quotations; comb at 18@22c.; strained and extracted, 8@12½c.—top rates for choice put up in small packages suitable for retailing.

BEESWAX—Selling lightly at 19@20c.

R. C. GREER & CO., 117 N. Main Street.

SAN FRANCISCO.

HONEY—Supply of comb is light, but equal to requirements at present asking rates. The market is not glutted with extracted, but holders find buyers extremely scarce who are willing to pay the prices asked.

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 8¾@10c.; dark and candied, 7@8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.

CLEVELAND.

HONEY—We report the market quite active; all our sales this week of comb honey in 1 pound sections have been made at 22c., and two pound sections at 20c. Extracted has taken a start, and we report trade quite active in small packages, 30-pound tin cans, especially, at 12c. per lb. Extracted in bbls. continues dull

BEESWAX—20@22c.

A. C. KENDEL, 115 Ontario Street.

CORRESPONDENCE

For the American Bee Journal.

Imported Krainer Bees.

J. M. SHUCK.

I have just received from Herrn, Michael Ambrozie, Legenfeld, Krain, Austria, a full colony of Krainer bees. These bees are to me great beauties, being nearly black with white stripes, the white probably due to hairs, as they all seem to be young bees. They arrived yesterday after a voyage of 26 days, and although the combs were smashed, the bees were lively and only a few dead. I am not certain that the qeeen is alive, but she probably is, as she customarily survives the colony through almost any number of mishaps.

The hive to me is a curiosity, being made of tough, hard, rough boards, about 24 inches long inside, 14 inches wide, and 5 inches deep; top and bottom nailed with odd-looking hand-made nails, wooden pegs and wire nails; no frames inside; combs had been built diagonally, and were filled with dark-colored, thick, rich honey, about 20 pounds. It was quite a task to open this hive, but I did it, and found the Krainers lively, good natured, and so fond of honey that they all soon had their fill.

Their flight seems to be very strong, and I am inclined to think them large as compared with the Italians. It seemed odd enough to see these mountain bees flying very freely to-day, with the mercury at 45°, when not a wing was to be seen about my other hives. I have no Krainer bees for sale, and if I succeed in keeping them till spring, will rear no drones from this queen next year.

Des Moines, Iowa, Nov. 22, 1881.

◆

For the American Bee Journal.

Bee-Bread Injurious in Wintering.

JAMES HEDDON.

As I have the near future laid out for much hard work of this kind, I will hasten to reply to the article of the Rev. Mr. Clarke, on page 364 of the BEE JOURNAL for Nov. 16. I am glad he has attacked my theory, and if he proves to me that bee-bread is not the main cause of our greatest drawback, I shall have occasion to thank him again and again.

It is true I stand 10 to 1 in favor of the pollen theory; but as long as the 1 remains the "guess" also remains. It may be possible that I "waxed too confident," enthusiastic and warm upon the subject, but, after all, such a weakness is, to say the worst, a moral one, and to be too full of earnestness and enthusiasm to leave any room for hypocrisy and deception is not so very bad, is it? With a possession of the first named propensities, and the absence of the last, we will get at the truth by-and-by.

The "unaccountable phenomenon" of the total destruction of a whole apiary over there, and the success of this one over here, proves conclusively that the causes of the effects above named are entirely different, and it is an error to look for them in the realm of cold, or confinement, or any other condition that is common with both places. I believe that the pollen theory solves the problem because, first, a few miles intervening changes the amount, quality and position of bee-bread in the hives.

Second. Close observation of the pollen condition of the remaining hives and dead bees, argues that pollen-eating is the cause of dysentery. My knowledge of chemistry and the chemical properties of pollen are too limited to allow me to prove that this substance cannot be eaten in large quantities during confinement without sickening the bees, but other evidences cause me to "guess" that such is the fact. I see no knowledge betrayed in Mr. Clarke's able essay that convinces me that he has any evidence to the contrary.

I have long supposed that bees did discharge small dry pellets when wintering successfully, but I simply shut that phenomenon out of the consideration, because I can see no bearing that it has upon the subject. In nearly all of our most successful cases of wintering, our bees void a liquid feces, and we hardly stop to consider this "dry" technicality; had I said "no liquid excrement," the argument would have remained the same, with the chance to quibble a little left out.

If "two-thirds of the food eaten by man passes from the system through sensible or insensible perspiration," we have every reason to believe that it does from the bee in a much greater proportion. At all events, we have seen the need of upward ventilation and cushions to take care of the excess of the first named matter.

There is no proof, either way, in regard to what Mr. Root's bees did or did not eat, so why mention the matter at all?

True, an ox-chain is no stronger than its weakest link, but this rule has no bearing upon a collection of proofs, for teachers of logic have said: "Never back up a strong argument with a weak one; the diplomatic and cunning will attack this weak point, utterly ignoring the strong ones that may amply prove your position, and thus defeat you in the minds of your hearers." I quote the above, not as having any bearing direct upon the wintering of bees, but to show that so able a logician as Mr. Clarke can possess the weakness of error, or the unfairness to wish to put my arguments in a false light.

But I will try to show that the weak point is not there. I said that the dead colonies either left plenty of bee-bread showing signs of late work with it, or brood in all stages, and generally both, but nearly always brood. Mr. Clarke quotes this "nearly always," as though the exceptional cases had a bearing against my argument. My theory is that the consumption of pollen causes the dysentery, and my observation was that *all* dead colonies showed signs of using it one way or the other, either in connection with brooding or without, but "nearly always" in connection with brooding. Mr. Clarke will stick fast if he tries to get through any hole in that part of my argument.

He says that "inasmuch as some colonies died that had no young brood, the argument becomes inconclusive." He misunderstands; the argument is not based on young brood at all, but the winter consumption of bread by the old bees (whether that consumption is induced by handling the bread in feeding larvæ or otherwise), and I made the statement that in my careful observations I had noticed that "neary all those that died had brood in all stages," to give the idea that the greatest cause of pollen-eating by the older bees came from brood-rearing. Let us examine almost the first position assented to by Mr. Clarke. I quote:

"I can understand that it may and probably does interfere with successful wintering to have brood-rearing carried on too late. It necesitates a good deal of nurse-work, and more activity generally than accords with that state of quiescence which we know to be so desirable."

"We know;" why, Mr. Clarke, I only said I "guessed." I stood 10 to 1. I dare not say "I know" too much about that "quiescent" state, for see the opinion of so careful an observer as Mr. Chas. Dadant, in BEE JOURNAL of Nov. 9, page 354. I return your advice, "go slow." Recant; be as modest as I was in the article you attacked, and say "we guess." Remember, whatever you may say upon this wintering problem, men of large experience are ready to take the argument all out of the assertion.

But what are we to understand by the above statement? That in Mr. Clarke's locality bees carry on brood-rearing in the fall, after the commencement of the quiescent period? Was that ever the rule anywhere? He seems to mistake the condition of things. This brood that we find is spring brood, and not fall.

I did not say, nor assume, that bee-bread was poisonous, and because I believed that such portions as the bees often indulged in were the cause of dysentery, why should Mr. Clarke drag in this venomous word "poison," any more than I should, because he admits that eating "too freely" of it might perhaps cause trouble? If it should cause trouble should I use the word "poison?" If that trouble should be claimed by me to reach as far as dysentery, even unto death, should Mr. Clarke set up a straw man of "poison" to combat? Is it not as easy to answer what I said, as what I did not say? Men do not, as a rule, eat poison, but they still continue to partake of food that causes intestinal diseases, unto death.

I thought I had made it clear that I believed that the eating of bee-bread by the older bees, during continued confinement, was the cause of dysentery, compared with which, as a cause of our loss of stock, all other causes combined fade into insignificance.

I think I need waste no time in replying to Mr. Clarke's claim that he is of the opinion that pollen is necessary (or may be) for the most successful wintering of bees. I see that he is not capable of convincing me, through my reason, that nitrogen, carbon, hydrogen and oxygen are so arranged in the bread that it is (under the conditions I have named) necessary or even wholesome to the bees. Hives compared to houses, and bees to cows and horses, are in my mind rather poor comparisons. Horses, like other large animals, are governed by the same laws winter and summer. Not so with bees at all. He asks, "If pollen prevents dysentery in summer, does it cause it in winter?" From the first part of the proposition I dissent, to the latter I answer, yes. Never mind Mr. Von Morlott, whoever he may be, but demolish us one at a time, please.

I think Mr. Clarke underrates himself when he says that bees in "many things are far wiser" than he. I may be in error in this regard, however, and will "go slow," making no rash statement to get picked up on; but I am sure that the successful results arising from bee instinct are not born of knowledge at all. If from knowledge, the bees really may be, and according to him are his superiors sometimes at least, for he says that though he knows that porridge is good and necessary for him, he is strongly tempted to give it the go-by, though he is sure the bees will only take that which is best for them.

I explained fully that I thought they ate bread only when the facilities for getting at, or the attraction of the quality of the honey was against them. Finally, Mr. Clarke comes to a serious close by telling us what we do know. I will not occupy space by quoting them, for we all know that we cannot control temperature unless in special repositories, and we have further demonstrated that, one year with another, said repositories have little or nothing to boast over the changeable out-door position.

We also know that "quietude" is an effect, and not a cause. We do not know that those who use, or pretend to use division boards succeed any better than those who do not; but we do know that in spite of any and all sorts of "fall preparations," dysentery claims whole apiaries for its own. "Spreading combs" has also signally failed, to our certain knowledge.

I never had, or pretended to have, any "bacteria," but only threw out a bacteria hypothesis. All those who believe in the detrimental effects of cider honey and all fermented honeys among which is Mr. Chas. Dadant, are bacteria-ites, are they not? What is fermentation but bacteria? If I understand the primary principle of chemistry correctly, wipe out of existence "bacteria," and fermentation and decomposition are things of the past only. Did any one think that I made bacteria? All I did was to suppose a new species of this well-known race of microcoxi, and say, "let us reason together," hoping to possibly point in a direction where some man of more ability and time might find the evil genius. No one ever answered any argument upon that hypothesis, but a few spent all their force trying to identify the supposition with me as an assertion.

Now, many of those who believe the "pollen theory" absurd and false, are working hard to settle it firmer with me than it belongs, while those who corroborate the theory never mention my name. Such charities are comforting.

If the future years of experience should positively demonstrate that bee-bread, nitrogen, carbon, hydrogen, oxygen and all combined, was the real cause of dysentery, will you, Mr. Clarke, couple it with my name with the same earnestness you do now? I feel that you will, and I will return the favor by trying to keep in its proper place any discovery you may be directly or indirectly the parent of, if any such circumstance ever happens.

Dowagiac, Mich., Nov. 19, 1881.

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For the American Bee Journal.

Size of Frames and Hives.

J. S. DUNCAN.

I commenced the season with five small colonies, covering three 11¼x11½ frames. Not satisfied with the small frames, I adopted one 10x15, calculated to hold six 5x5 sections; the hive is for exclusive side-storing, and has a capacity for 14 frames (16x21x10½) when worked for extracted honey, or 3 frames of sections on each side of brood nest. I allowed natural swarming; one absconded; after this I caged the queen and hung her where the bees were settling, but very soon they were all in the air again, leaving about a quart of bees with the queen. From the action of the bees after the excitement of swarming and loss of the queen, it is evident that they lose all recollection of their old home, as they are liable to go into any hive, or several hives, making great confusion among the surrounding colonies.

In queen-rearing I had a case similar to that described by your Kansas correspondent, on page 118. I formed 3 colonies with ripe queen cells; examined them next day and found the cells all open, while one of the queens had a comb partly filled with eggs. On examining the comb I found it had been cut open, the intruder being a queen I had doubts about, as she had been in another hive 16 days and had not commenced laying. I examined the hive this queen was in after leaving the others, and picking her off the comb threw her into the air to test her wings; she circled around the yard several times, and on returning went into the wrong hive, was accepted, and has proved to be a very good queen.

My honey carriage is a small hive mounted on a boy's express wagon I bought for a dollar, and has all the conveniences required in an apiary—boxes for scrap wax, fuel, queen cages, nails, dissecting knife, veil, gloves, or anything that may be required; the cover of the box being a handy recording desk, racks for a smoker and hammer, and a comb-holder that does not revolve. It is not patented and never will be. It is more convenient than a wheelbarrow; one great advantage is in having one hand at liberty to guard against any of those ferocious bees that may happen around.

My bees are all in fine condition, and packed for winter on from 3 to 6 frames (according to size of the colony), with a division-board on each side and a thick cushion on top; did not remove the oil-cloth, but spread the frames a little.

I think it would be a good plan for correspondents to give size of frames and capacity of hive when writing about bees. It would give the editor and his readers a better idea of the writer as a bee-keeper, a great help to beginners, and might be the means of adopting a uniform hive in America.

My profit from capital invested in bees is 40 per cent., all my investments being permanent, such as extractor, smoker, etc. My increase is 250 per cent., which pays me handsomely for the pleasure I have had with my bees.

Browning, Mo., Oct. 27, 1881.

For the American Bee Journal.

The Disposal of Honey.

GEO. W. HOUSE.

Since the publication of my article and the comments thereon in the American Bee Journal for Sept. 14, I have again visited our larger eastern markets, and I am still more confident that the position I have taken on the subject is correct. Time, however, will tell.

I notice the editor on the first page of that issue takes exceptions to the desirability of centralizing the honey traffic, and says: "The proposed centralization or co-operation is impracticable, for the reason that the necessities of bee-keepers vary as much as do their ideas regarding hives, wintering, etc. As a rule, the heavier producers have their outlets to market already established, or have had sufficient experience to be able to sell in job lots to the best advantage. These men of course would see no advantage to be derived from co-operation, and would not jeopardize their established trade by entering into the scheme."

The only "necessities" that bee-keepers have in marketing their products, is to realize satisfactorily on their consignments as quick as possible. To best attain this point would be to sell for *cash;* and that is what I have been laboring so hard to perfect; see page 291, American Bee Journal, where I said, "when we can concentrate our honey, we shall be able to sell for cash, and we shall see buyers traveling the country to purchase it," etc. Since that writing we have had the pleasure of seeing men traveling the country buying for cash. This, no doubt, is owing to the earnest work and diligent effort on the part of the heavier producers in this State to concentrate our honey, and we are now reaping our reward.

One firm, in particular, with a capital of fifty millions of dollars, have decided to handle honey on a cash basis altogether, and undoubtedly they will endeavor to control that market to a certain extent. In doing so, they will be obliged to buy up the small consignments of honey finding their way into the hands of commission men who do not scruple at cutting the prices. This is right, because they could not pay good prices, knowing that those small consignments would surely be closed out much below the market, thus having a tendency of lessening the prices, and working ruin to the firm making it their special business.

There are a very few commission houses in New York that make a specialty of our products. These men will co-operate in sustaining the prices. But of the many commission men, 99 out of every 100 have not the facilities for handling honey. They must necessarily have a special room or department for it, which fact is proved by the few making the business a success, besides many other little matters pertaining to the business.

I do not understand why the editor should call this feature a "scheme." Centralization is important to the heavier producers, and equally important to the lesser producer. They both are working for the same end, viz: to dispose of their products for spot cash upon delivery. To be able to do this, we must encourage the buyer or middleman.

While in Boston, a firm told me they could sell more honey, and it would command higher prices if the honey was confined to 3 or 4 wholesale houses. This firm are trying to control that market as regards prices, and they are right in their opinion, because there would not be that running from one commission house to another by the retailer, to pick up bargains that may be offered, and afterwards reporting the same to other houses in order to secure the same advantages.

If one man should consign 1000 lbs. of honey to each of 10 commission merchants, in nearly every case you would find that honey setting in plain sight where every passer-by would notice it. The retailer or grocer in passing along, sees honey in the hands of their commission men; the first idea that strikes him is, "Why, there must be a vast amount of honey in the market. What a splendid opportunity I shall have to buy cheap. But I must wait a while, for fear that the market will be glutted, and the bottom knocked out of the prices."

If the 1000 pounds were put into the hands of one man, the producer would realize on his consignment much sooner, and at far better prices, because the retailer or buyer would feel safe in putting in his stock, knowing that the prices would not be cut, nor the market glutted.

While in New York, I found honey in the hands of tea commission firms; flour commission houses; hop commission merchants, and so on through the list. I took the position of buyer, and upon making inquiries under the pretense of desiring to purchase, I was enabled to get their manner of doing business for us honey producers. If this was not a fair test, and the best way to obtain the real facts, will some one please say what is? Men may write, and men may theorize; but to obtain knowledge, we must have practical experience.

If you wanted to buy but a few crates or cases of honey, it could not be purchased much under the market price. But I found that they were desirous of closing out the whole consignment, and to get it off their hands, would sell for 25 per cent. under the market. And again, not making a specialty of the business, they had no special place or department for the consignment, but it would be piled up among various other goods, and some out on the street, broken, leaky and filthy.

Reader, do you think this manner of marketing your products is satisfactory and business-like? Do you think you would realize as much, or get returns any quicker? Or would it not be better for us all to have our honey neatly piled up in a room where no other goods are kept, and arranged so as to compare favorably with the other consignments beside it, and in the hands of a thoroughly reliable and competent man, who has an established honey trade?

Reader, this matter rests with us; the sooner we perfect a system of marketing (concentrating our honey), the quicker will we see "wholesale honey merchants" springing up; when we shall be able to dispose of our products for cash, and at good prices; fluctuating in price no more than any of the agricultural products.

On page 315, American Bee Journal, Mr. Heddon says: "Buyers are 'bears,' for it is to their interests to depress the wholesale price of honey. Commission men are the 'bulls,' for they are working for our interests, and hold up the prices to the best of their ability."

In this I cannot agree with Mr. Heddon. It seems to me the above quotation is right to the reverse of what it actually is. I will give a case of actual occurrence that I happened to witness:

A bee-keeper arrived in New York with 14,000 pounds of comb honey. He was offered 17 cents in cash for his entire crop. He wanted 18 cents, and would not sell for less. Therefore he placed the honey in the hands of a commission merchant, and before he was out of town, the honey was sold for 16 cents to the same firm that offered him 17 cents. That man, undoubtedly, will never sell on commission again, as that transaction cost him nearly $400.00. Yet such transactions are of frequent occurrence.

As a rule, the commission men are the "bears," because all the interest they have in the matter is to get their per cent. of commission, while the wholesale dealer or middlemen are the "bulls," because it is to their interest to sell their own goods at the best possible prices.

From what I have seen and know by actual transactions, I cannot see how honey will bring more money to us put into the hands of the retailer through the commission house, than placed in the retailer's hands through the wholesale honey house.

I think the editor has misunderstood my position on this question. There is no "scheme" about it, but simply the duty of each and all of us for the protection of our interests. I have no doubt said enough in this to clearly define my position in this cause, to the reader and all interested. When we each work for our own interests, we work for the interests of each other. Therefore I shall stand firmly on this rock, knowing full-well that time will sustain me in this work for the interests and benefit of the fraternity.

I heartily endorse the action of the American Bee Journal in the issue of Nov. 16, in the denouncement of "glucose" and its "advocates." It is the duty of all our periodicals to pour red-hot shot and shell into the camps of those advocating "glucose" in any manner.

I am also pleased to see the American Bee Journal again falling into line by encouraging debate, etc. This is what placed the Bee Journal at the head 12 years ago. And it is that spirit that brought out many facts and settled doubts in years gone by.

To get at facts, we must admit free discussion. Facts are more important than favors. To reach the real value, we must compare—add and subtract, till the actual result appears.

Whoever brings before the public a new article, or advances a new theory, must expect, and ought to solicit criticism, until all the points are brought out independent of theory. To oppose this shows a want of confidence in the merits of the article or question advanced.

Fayetteville, N. Y.

From the Farmers' Home Journal.

The Yellow Italian Bee.

A. P. FARNSLEY.

When I was a boy, I was very fond of watching the bees. I would stand and watch them for hours, and never tire of seeing them going out and coming in laden with the pollen of the flowers. Now, my recollection is that these bees I took so much interest in when I was a small boy, were yellow, and had the yellow bands around the abdomen, like the Italians.

I remember when looking at them, the negro men at dinner time would come to where I was, and talk to me about them, and about my fondness for them; and I distinctly remember one of the men used to tell me about the wild black bees that made their homes in the woods; and I remember when the bees in some of the hives changed to black bees, the man referred to accounted for it by saying the wild bees drove out the tame ones, and took possession of their homes. Now, so vivid is my recollection of the yellow bees with their golden bands, that the first time I saw the Italians bees they reminded me of old friends of long ago, and by association I was carried back to the scenes of my youth, when I was as happy and free from care as the beautiful forms I was so fond of watching going in and out of the hives.

Dr. Allen informed me that parties in Arkansas claim that they had the yellow bee with the bands long before the war. Aristotle describes very fully two kinds of bees—the yellow and black bee. The yellow bee was lost sight of for several centuries. They were discovered by one of Napoleon's officers when he crossed the Alps. They were introduced at that time into France. Now, am I wrong in my recollection of the bees I watched in my youth, or is it possible that the Italian bee was introduced into Louisiana by the French when that country belonged to France, and that they migrated north till they reached Kentucky, or that they were brought from Louisiana here at an early day by persons here who annually visited New Orleans to trade? Men used to go from my neighborhood annually, before 1812, to New Orleans to trade. Some of my father's brothers went from here at a very early period, to Louisiana for that purpose.

Now, if the bees I watched when I was a small boy were Italians, or descendants of Italian stock, and if the yellow bees that were in Arkansas before the war were descendants of Italian stock, then the Italian bee was first introduced into this country when Louisiana belonged to France.

I would like to hear from some of our Arkansas friends on this most interesting question, and also from others who know any thing about the yellow bees of 40 years ago. Especially would I like to hear from Mr. T. S. Kennedy and Gen. C. M. Clay, whose many opportunities for observing these insects will enable them to say something of general interest to the readers of your paper. The latter gentleman, while in Mexico in 1846, may have seen bees of that country.

For the American Bee Journal.

Size of Hive for Comb Honey.

A. R. KOHNKE.

In answering a question of Mr. Sears, of Girard, Pa., as to the size of hive for comb honey, the editor of the Bee Journal says that the Langstroth is the one he prefers. But he is probably aware that there are 2 sizes of that hive in general use, one of which holds 10 frames, which Mr. Muth, of Cincinnati, uses; the other being an 8-frame hive, Mr. Heddon prefers to the exclusion of all others.

To arrive at a correct size of a hive, we should first find out the desirable qualities of such. 1. The hive and frame should be shallow enough to prevent the bees from storing too much honey just above their brood nest in the brood chamber, and it appears to me that the Langstroth frame is admirable for this purpose. Second, the queen should have sufficient room to deposit as many eggs as she can, besides leaving room enough for the bees to store honey and pollen for use in the brood chamber. This latter takes on an average about 2 inches under the top bar of each frame, being less in the middle and more on the outside frames, or about ¼ of each frame. One frame of comb 8x16 contains 6,400 cells; 8 frames, 51,200, and 10 frames, 64,000, three-fourths of which serve for brood rearing, or 44,800 and 56,000 respectively. Now I will leave this part of calculating, and commence at the other end.

Mr. Langstroth says in his book, "the queen lays 6 eggs per minute," which, to grant all the advantage possible, I will admit to be the case at the height of the honey season. But that would make 360 eggs per hour, and 8,640 per day; at that rate it will take only from 5 to 6 days to fill an 8-framer, and from 7 to 8 days a 10-framer, and the queen would fill, in 21 days (the time bees hatch from egg), 181,440 cells, or 30 frames.

Prof. Cook, in his Manual, puts it at 4 eggs a minute, or 5,760 per day, at which rate an 8-framer would be filled in less than 9 days, and a 10-framer in less than 11 days, or 20 frames in 21 days. I do not think we have such queens, though he claims that about 3,000 eggs per day is the average of a good queen. Berlepsch says he has seen queens deposit eggs at the rate of 6 to 7 per minute, but adds that such may be extra exertions of very fertile queens at the best honey season, and he puts the number of eggs laid by a good queen at 1,200 per day. At that rate she will keep only 5 frames full of brood. Now we all know that a queen will keep from 8 to 10 frames full, and then sometimes go to depositing eggs in surplus boxes for want of room; at least I have had such. But I think we will be justified in saying that an average queen lays at a rate of from 2,000 to 2,500 eggs per day, less than one per minute.

As it is preferable to crowd the bees a little to force them into the surplus arrangement, I think a hive which is large enough to accommodate a queen which lays 2,000 eggs per day at her best, is the hive we want. Multiplying 2,500 by 21 days, we get 52,500 cells, which the queen wants to keep her busy. Now, that is about what an 8-framer will furnish, frames of standard Langstroth size. As I stated above, I have had queens which would keep 10 frames filled with brood and still be in want of more room; but I have seen more hives of 10 frames where the honey on the outside frames remained from one year's end to the other, and not more than 7 or 8 frames filled with brood, which I, taken all in all, consider proof conclusive that an 8-frame Langstroth hive is preferable to any other. To prevent the queen from entering the surplus arrangement on top, it is only necessary to use small sections 4¼x4¼; into these, the queens will rarely, if ever, go to depositing eggs, for the reason that she seems to object to too much wood in the brood department; if in addition to small sections, the latter are put on a rack made of slats nailed together, so as to leave space enough between them for the bees to get through, such as Mr. Heddon uses, the queen will never be found in them.

In the summer of 1880, I put into several hives frames filled with sections a little larger than 3x3, in the middle of the brood nest, which I wanted to use to start some nuclei to raise queens. The wood of these small frames was very thin, not more than 1-12 of an inch, each Langstroth frame holding 10 of these sections. But it did not work; the queens would not lay their eggs in so much machinery; so I had to give up that plan. and learned the value of small sections, as to where they would do the most good, and where they would not.

Though I am not yet a member of the National Bee-Keepers' Association, I would propose to have the proceedings, etc., of that body published in pamphlet form of the size of the BEE JOURNAL, to have it bound in with same year, published at the cost of the Association, and each member should be entitled to one copy, nonmembers paying to the funds of the Association a reasonable price for it.

Youngstown, O., Nov. 21, 1881.

[All standard Langstroth hives contain 10 brood frames.—ED.]

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For the American Bee Journal.

Theories and Facts.

J. W. WHITE.

That was a severe criticism made on a distinguished man, a generation ago, when it was said of him that "he depended on his memory for his wit, and on his imagination for his facts." But he was not alone in his glory; a similar talent is frequently manifested among men of every profession or business. I was once present at a consultation between several physicians. The conclusion reached was so manifestly absurd that I ventured to ask one of them the next day, "Is there such a thing in your profession as forming beforehand a theory about what is the matter, and then making a diagnosis to suit it?" His answer was: "I am sorry to say there is just such a thing in our profession, and I have to acknowledge with shame that I have in this instance been a party in the business." Another consultation was held, and a different conclusion reached. In theology men have inherited their creeds from their parents and churches, and confirmed themselves in them by arguments drawn from nature and revelation; or, giving up their traditional beliefs, they run off into the wildest speculations. What a rare thing it is to find a man who is not wedded to some pre-conceived opinion, who is an honest inquirer after the truth, and who is willing to follow the inductive method of philosophy by getting his theory from the facts, rather than making his facts conform to his theory. Blind adherence to traditions, and the equally blind reception of speculations mistaken for truths, are the two great hindrances to the world's progress in goodness and truth.

How is it with us bee-keepers? Are we making much progress in scientific bee-culture? Beyond the use of section boxes and comb foundation, what do we know to-day that could not be learned from the Rev. L. L. Langstroth's book, written more than 25 years ago? Why do we not get to the bottom of the questions about wintering, dysentery and spring dwindling? Is it not because we are not close observers and because we speculate too much, and observe and experiment too little? Let us try to get the facts, all the facts about wintering, dysentery and spring dwindling before us, and keep them there, and then let us be shy of anything which does not harmonize or account for all the facts. I will state some things that I take to be facts; if any of them are not facts, let them be challenged and the truth presented. In keeping bees 17 years I have not made notes on every point. and may be mistaken, but I think I may call the following a statement of facts:

The colonies which wintered well were not deficient in pollen. Good colonies which starved to death exhibited no signs of disease from the use of pollen or any other cause. Good colonies which were confined for months in the cellar, and were short of stores so that they had to be fed in March and April to keep them from starvation, showed no signs of dysentery brought on by using pollen to save their scanty stores of honey. After removing the bees to their summer stands, generally about the second week of March, I give them an overhauling and clean out their hives; healthy or strong colonies generally or always have at that time some young bees, and more or less brood in all stages; diseased colonies, which show signs of dysentery, have very little brood, generally none at all. How can we account for this, if brood-rearing while the bees are confined tends to give them dysentery? In this latitude (about 40½°), where the apples bloom on an average about the 10th of May, the locusts about the 25th of May, white clover about the 1st of June, and linden about the 1st of July. unless the brood-rearing is far enough advanced in March to fill three or four combs, the bees will not be strong enough in numbers for the honey harvest. The one drawback is, during March and April the weather is sometimes so rough that the bees cannot fly to get water, and without water they cannot rear much brood. I have never had a successful year where the brood-rearing was seriously interrupted in March, unless this year is an exception, owing to the good fall pasture. Last spring the colonies had each from one to three combs of brood on the 14th of March, and none on the 14th of April. After that they filled up rapidly. The old bees died off about the first week of May, and if it had not been for the warm spell of weather about that time, much of the brood would have chilled and perished. But what we need in this section of country is to get our bees to brood-rearing early, and some way to supply them with water so that they can keep on without interruption.

In the winter of 1871-2, before I had heard of the bad effects of pollen and winter brood-rearing, and when I knew that they reared brood in February, I fed my bees for about 5 weeks in the cellar, a mixture of honey and flour to stimulate the brood-rearing. Did they rear brood? They did. Did they get dysentery? They did not. Did they do well the next summer? It was the best year I ever had. I would not advise others to follow my example that year, unless on a very limited scale as an experiment. But with all these facts before me, it is not wonderful that when I read statements made so boldly that pollen and early brood-rearing produce dysentery, I find myself questioning something.

There is one thing more I would like to know. I see it stated that by having the hives well filled with brood in September and October, and thus having plenty of young bees to winter, we may prevent spring dwindling. This seems to be a reasonable theory. But the difficulty with me is to get my bees to do as I want them in this matter. One year ago I fed them to get them to rear brood, but for all I could do they slacked off early in September to 1, 2 or 3 combs of brood to each hive, and they would not enlarge the brood nest, and with October all brood disappeared. Yet I had no dwindling last spring. This fall we had the best and most constant flow of honey from July till October I ever saw, the hives gradually gaining in honey all the time. But it was the same as the year before, brood-rearing slacked off in September, and disappeared early in October. I have kept a record for years of the amount of brood in the hives at different times of the spring. but until the last two years paid no attention to the amount they had in the fall. Who has a record of this kind? Who can tell us the number of combs of brood in each hive, say on August 15, September 1 and 15, and October 1 and 15? Who can report the number of additional frames he got filled with brood by feeding after the bees had contracted their brood-nest in September? We would like to have the facts. General talk about keeping the hives full of brood, without some figures and facts, may only make us skeptical.

Milroy, Pa., Nov. 11, 1881.

CONVENTION
NOTES

Local Convention Directory.

1881. *Time and Place of Meeting.*

Dec. 8—Michigan State, at Battle Creek, Mich. T. F. Bingham, Sec., Abronia, Mich.
15—S. E. Michigan, at Ann Arbor, Mich. N. E. Prudden, Sec.

1882.
Jan. 10—Cortland Union, at Cortland, N. Y. C. M. Bean, Sec., McGrawville, N. Y.
11, 12—Nebraska State, at Ashland, Neb. Geo. M. Hawley, Sec., Lincoln, Neb.
17, 18—N. W. Ill. & S. W. Wis., at Freeport, Ill. Jonathan Stewart, Sec., Rock City, Ill.
25—Northeastern, at Utica, N. Y. Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich. A B. Weed, Sec., Detroit, Mich.
25—Texas State, at McKinney, Texas. Wm. R. Howard, Sec.
May — —Champlain Valley, at Bristol, Vt. T. Brookins, Sec.
25—Iowa Central, at Winterset, Iowa. Henry Wallace, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

* * *

Central Michigan Convention.

The Central Michigan Bee-Keepers' Association met at Lansing, Oct. 26, and from the Lansing *Republican* we take the following record of proceedings:

The Convention was called to order by President Ashworth. The Secretary and Treasurer being absent, their reports were postponed, and an opportunity was given to those who desired to sign the roll. C. Thompson and W. C. Lankton became members of the Association.

The President appointed Messrs. White and Wood a committee to receive questions for the question drawer, and Prof. Cook, L. B. Baker and Mrs. F. R. Mattison, a committee to answer such questions.

An opportunity was given to any who desired to relate their experience in bee-keeping during the past season, and President Ashworth was called for. He knew but little about the bees, as he had been from home most of the summer. He had 16 colonies, and they were doing well.

Mr. Langton was a beginner. He bought a single colony a year ago last spring, and made up 2 from them. He let them have their own way pretty much. They have increased to 12 colonies and have taken about 1,200 lbs. of honey. He used chaff hives, and asked if it was advisable to remove them to a sheltered position on the south side of his barn for winter. The general expression was that they should not be disturbed.

Mr. White had 9 colonies this spring, and from them and their increase had taken an average of 125 lbs. of comb honey.

Mrs. Harrison used chaff hives and had taken about 300 lbs. from 3 colonies; was making arrangements to go into the business more extensively.

Mr. Wilson commenced the winter with 9 colonies, saved 7, and those have increased to 20. He extracted about 200 lbs., and had taken about 100 lbs. of section honey. Wintered in temporary chaff hives, which he has made in sections so that they can be taken off and packed away in the spring. Used 6 inches of oat chaff around the sides.

The President said Mr. Mitchell, a successful bee-keeper, used clover chaff.

Mr. Hanchett, of Leslie, had large experience on a small scale. Went into winter quarters with 21 colonies and came out with 4, but thought it due largely to carelessness in not providing for a severe winter. He packed with forest leaves and opened his hives about April 1; they suffered from spring dwindling. A neighbor lost a large number of bees by permitting them to take their first fly in the afternoon, and they were chilled. He discussed the question of ventilation and oil cloth covers, and the general expression was adverse to the latter.

Mr. Thomas, of Brighton, had a most unfavorable location for bees, but his experience had been diversified. Used the simplicity hives and wintered on summer stands. A year ago he had 50 colonies of bees; in February had lost 6. In the spring he had 20 colonies which had increased to 80, and he had taken 1,850 lbs. of extracted honey and 150 lbs. of comb. His bees had plenty for winter, and were in winter quarters.

At the afternoon session, which convened at 1:30 p. m., the attendance was still light. The President announced a continuance of the experience meeting, but there was nothing forthcoming. Addresses were also called for without response, and members were then requested to write and furnish to the committee any question upon which they might desire information.

Mr. Waldo was called upon for his experience, and said his bees had done remarkably well. He started a year ago with 9 colonies, and now had 25 colonies, after selling $44 worth of bees, and he had put them away with from 25 to 32 lbs. of honey each. He had sold at least $50 worth of honey.

A. L. Baker, of Lansing, started with 2 colonies and now had 9 strong ones, having united 2 weak ones. He had sold 125 lbs. of honey. This was his first year's experience.

Reuben Wood had last spring 36 colonies, but 14 of them were weak. He had sold 4 and had 66 left for winter, and had taken some 1,500 lbs. of surplus honey. The bees were in good condition; he kept them in cellar last winter.

The question of using sawdust for packing was discussed, and Prof. Cook, who had just come in, stated that some of the most successful bee-keepers were using it, and preferred it to anything else. He stated that he should put up his bees this winter with sawdust or chaff packing in the top, leaving the bottom of the hive open.

L. B. Baker did not think such a plan would work, as the sawdust or chaff was not as good an absorbent as cloth, but Prof. Cook thought that position faulty, and called on Mr. Robinson, who wintered his bees in the house, and never used anything but sawdust on top, enclosing his hives in burlaps covers. Speaking of the effects of cider, he said there was a large cider-mill in his vicinity, but he had never seen any harm come from it among his bees. He handled his bees all winter.

Prof. Cook did not think bee-keepers need to fear for their bees during the winter, if they will only use common sense, and apply what is already known in regard to it. The larger bee-keepers have the matter in good shape, but their plans will not always work with a small number of colonies. The discussion was continued for some time by Messrs. Cook, Robertson, Baker, Wood, Waldo and others, and considerable was said upon the subject of winter handling.

An informal interchange of experiences in honey-gathering during the past season, and the prospects of fall gathering, followed. Speaking of cider honey, some of the members of the Association thought that bees never stored it, but Mr. Robertson stated that he knew of his own experience that they did store it.

Prof. Cook gave in substance a paper by Mr. Heddon, which is somewhat singular in its statements, in regard to chronic poisoning from them. He also spoke of the Syrian bees, detailing their many good qualities, but intimating that they were too cross for a beginner to handle with any comfort.

R. Wood had 1 colony, and he found them very quiet, but Prof. Cook thought the reason was because they were mated with Italians. Another gentleman, who took a colony from the college, said they were easily handled by him.

Prof. Cook explained a new plan for securing sections into a hive which he saw, the invention of a Kentucky bee-keeper, and which he believed to be superior to anything he had previously seen.

Members of the Central Michigan Bee-Keepers Association, were invited to attend the State Convention at Battle Creek, Dec. 8 and 9, and were made delegates.

It was also resolved that the annual meeting be held in Lansing, at the Capitol, on the 3d Thursday of April, 1882.

Prof. Cook exhibited a specimen of foul brood, which attracted much attention, and Messrs Wood & Narmore exhibited a very convenient hive.

The question drawer was then opened, and answers were given by members of the Association, affording much valuable information, especially to young bee-keepers.

Prof. Cook explained how to detect foul brood, and stated that it was all around Lansing, but not here yet.

Iowa Central Convention.

The Iowa Central Bee-Keepers' Association met at Winterset, Iowa, November 3, 1881.

The following officers were elected: A. J. Adkison, Pres.; John Graham, Vice Pres.; Henry Wallace, Sec.; Mrs. J. W. Pryor, Treas.

An executive committee was appointed to select subjects for discussion, and Moses Bailey and others to present specimens of honey cake.

The next regular meeting will be held in Winterset on the last Thursday in May.

HENRY WALLACE, *Sec.*

Michigan Bee-Keepers' Association.

The 13th annual meeting of the Michigan State Bee-Keepers' Association, will be held in the City Hall at Battle Creek, on Thursday and Friday, the 8th and 9th of December. The time and place makes it convenient for those who wish to attend the annual meeting of the State Horticultural Society, which convenes at South Haven, the three previous days of the same week. The Michigan Central, Chicago & Grand Trunk, Detroit, Grand Haven & Milwaukee, and the Grand Rapids & Indiana Railroads will sell tickets to members at excursion rates. To secure reduced fare, all must have certificates, which can be furnished by the President, A. J. Cook, Lansing, Mich. Arrangements are made with hotels for fare at from 80 cts., to $1 per day.

The meeting promises to be the largest and the best ever held. All bee-keepers are cordially invited to be present. Bee-keepers are requested to bring samples of honey, apparatus, and articles of interest to apiarists. The following programme has been arranged:

THURSDAY FORENOON.

"Italian bees," S. K. Marsh.
"The new bees," D. A. Jones.
"Shall we continue to import queens?" Discussion opened by A. B. Weed.

AFTERNOON.

"Bees and grapes," H. D. Cutting
"Mistakes of bee-keepers," Dr. E B. Southwick.
"Honey as food," Dr. J. H. Kellogg.
"The future honey market," T. G. Newman.

EVENING.

"Crumbs from the table of the National Convention," President's address.
"Adulteration," Dr. J. H. Kellogg.
"Apiarian implements," Hon. A. B. Cheeney.

FRIDAY FORENOON.

"Rearing and selling queens," W. Z. Hutchinson.
"Foundation," James Heddon.
Address, A. I. Root.

AFTERNOON.

"Foul brood," C. F. Muth.
"Extracted honey," Chas. Dadant.
"Hints," T. F. Bingham.
Election of officers and reports.

EVENING.

"Wintering," O. O. Poppleton, D. A. Jones, C. F. Muth, and others.
Miscellaneous questions.

A. J. COOK, *Pres.*
T. F. BINGHAM, *Sec.*

☞ The South Eastern Michigan Bee-Keepers' Association, will hold its annual meeting at the Court House in Ann Arbor, on Thursday (and perhaps Friday), commencing Dec. 15, 1881, at 10 a. m., for the election of officers for the ensuing year, and such other business as may be brought before the Association. A good attendance and interesting meeting is expected. Several subjects of interest will be discussed by able men.

N. A. PRUDDEN, *Pres.*
G. J. PEASE, *Sec. pro tem.*

☞ The Texas State Bee-Keepers' Convention will be held at McKinney, Texas, on Tuesday, April 25, 1882.

☞ The annual meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held in Temperance Hall, Freeport, Stephenson county, Ill., on the 17th and 18th of January, 1882.

JONATHAN STEWART, *Sec.*

☞ The Nebraska State Bee-Keepers' Association will hold its annual meeting in Ashland, Neb., on the 12th and 13th of January, 1882. A cordial invitation is extended to all who are interested in bee-culture.

T. L. VONDORN, *Pres.*, Omaha.
G. H. HAWLEY, *Sec.*, Lincoln.

SELECTIONS FROM OUR LETTER BOX

Still Gathering Honey.—While bee-keepers in the North and West are put to their wits end to keep their bees from freezing, we in beautiful Texas are not bothered that way. Although the season has been dry, my bees did well, and are still gathering a little honey from Spanishneedle and smartweed, and breeding right along. I have drones flying yet. I have some honey to extract yet, and when all is gathered it will amount to about 9,000 lbs. of extracted honey, and 1,000 1-lb. sections, from 100 colonies. I have worked up a good home market, and sold nearly all my crop at 15c. for sections, and 10c. per lb. for extracted. Honey put up in nice, neat packages will always sell, and run the old-fashioned strained honey out of the market. I wish the Weekly BEE JOURNAL much success. J. W. ECKMAN.
Richmond, Texas, Nov. 18, 1881.

Mississippi for Bees and Honey.—This has not been a good honey season; for 2 months in the summer the bees gathered nothing, but in the fall they made up much of the loss. My bees gathered honey up to Oct. 20. I think the Mississipi Valley is the best bee country in the World. I have sold over $500 worth of honey from 40 colonies. Much of it was comb honey, and I sold it in St. Louis at from 14 to 20 cents per pound. This is the best business in this country. I shall increase to 150 colonies next year. I cannot do without the BEE JOURNAL.

G. C. VAUGHT.
Greenville, Miss., Nov. 18, 1881.

Introducing Queens.—We hear many complain of losing queens when introducing them. I will give my plan which has always been successful both with virgin and fertilized queens. Remove the queen to be superseded, if they have one, then about noon, when the workers are all out, remove the hive 3 to 5 steps, and place an empty one on its stand; open the one removed, take out one frame, brush the bees down in the hive, place this frame in the empty hive where the workers are gathering, then let the queen crawl out of the cage on the comb; the workers will find themselves in a strange hive, and consequently will hum around the entrance a few minutes, then gradually ascend the one frame inserted, finding a strange queen in a strange hive, and will receive her. In 10 to 20 minutes you may proceed with the other frames, brushing the bees down in the hive removed till all are taken out and placed with the first frame removed, when the bees will be left without queen or comb, and will naturally one by one leave the hive and return to their old stand; the young bees will remain till the last, then you may place them near the entrance, and let them crawl in. I hail the BEE JOURNAL as a tried friend.

G. W. ASHBY.
Valley Station, Ky., Nov. 11, 1881.

Apiary Record Book.—I will take 2 copies if you, Mr. Editor, will get it up. I think the BEE JOURNAL is a splendid paper. Its weekly visits are a pleasure to me, for it is so full of *bee* news. W. K. LEWIS.
Dry Ridge, Ky., Nov. 19, 1881.

From an A B C Scholar.—I have read the Weekly BEE JOURNAL for some months, and think it is just what every A B C scholar needs to post him up, and so send for it for next year. As it comes every week, it keeps up a fresh and keen interest. I do not know how I could get along without it. HENRY TILLEY.
Castle Hill, Maine, Nov. 14, 1881.

☞ Subscriptions may commence with the first number of any month in the year.

Special Notices.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

☞ Articles for publication must be written on a separate piece of paper from items of business.

Photographs of prominent Apiarists—Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

☞ When changing a postoffice address, mention the *old* as well as the new address.

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

An Agreeable Dressing for the Hair, that will stop its falling, has been long sought for. Parker's Hair Balsam, distinguished for its purity, fully supplies this want. 44w4

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

The proprietors of Kendall's Spavin Cure challenge the whole world to produce its equal as a cure for rheumatism or any other deep seated pain. It stands without a rival. 48w4.

Women are Everywhere Using and recommending Parker's Ginger Tonic, because they have learned from experience that it speedily overcomes despondency, indigestion, pain or weakness in the back and kidneys, and other troubles peculiar to the sex.—*Home Journal.* See adv. 44w4

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

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"*The foremost religious newspaper of the United States.*"—THE REV. JOSEPH COOK.

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It publishes more religious discussions than the religious reviews, more poetry and stories than the popular monthlies, and gives more information than an annual cyclopædia. The long cable dispatches recently published from the great Methodist Council in London are a good illustration of what THE INDEPENDENT is constantly doing. A list of the most prominent religious and philosophical writers, poets and story writers in the country is the list of the contributors of THE INDEPENDENT. Besides the space set aside for these writers and for editorials, there are twenty-two distinct departments, edited by twenty-two specialists, which include Biblical Research, Sanitary, Legal, Fine Arts, Music, Science, Pebbles, Personalities, Ministerial Register, Hymn Notes, School and College, Literature, Religious Intelligence, Missions, Sunday School, News of the Week, Finance, Commerce, Insurance, Stories, Puzzles and Agriculture. **32 Pages in all.**

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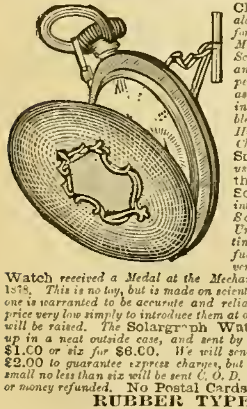

A perfect Time-Keeper, Hunting-Case and Chain, *latest style. We warrant it for five years to denote time as correctly as a* $100 *Chronometer Watch, and will give the exact time in any part of the world. It also contains a* First-Class Compass, *worth alone the price we charge for the Time-Keeper. For Men, Boys, Mechanics, School Teachers, Travelers and Farmers, it is indispensable. They are as good as a high-priced watch, and in many cases more reliable. Boys, think of it! A Hunting-Case Watch and Chain for* $1.00. *The* Solargraph Watch *is used by the* Principal of the Charlestown High School, *and is being fast introduced into all the Schools throughout the United States, and is destined to become the most useful Time-Keeper ever invented. The* Solargraph Watch *received a Medal at the Mechanics' Fair, at Boston, in 1878. This is no toy, but is made on scientific principles, and every one is warranted to be accurate and reliable. We have made the price very low simply to introduce them at once, after which the price will be raised. The* Solargraph Watch and Chain *is put up in a neat outside case, and sent by mail to any address for* $1.00 *or six for* $6.00. *We will send C. O. D. on receipt of* $2.00 *to guarantee express charges, but as our profit is so very small no less than six will be sent C. O. D. Satisfaction guaranteed or money refunded.* No Postal Cards Answered.

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There is nothing on the face of the earth liable to decay or spoil which Ozone, the new Preservative, will not preserve for all time in a perfectly fresh and palatable condition.

The value of Ozone as a natural preserver has been known to our abler chemists for years, but, until now, no means of producing it in a practical, inexpensive and simple manner, have been discovered.

Microscopic observations prove that decay is due to septic matter or minute germs, that develop and feed upon animal and vegetable structures. Ozone, applied by the Prentiss method, seizes and destroys these germs at once, and thus preserves. At our offices in Cincinnati can be seen almost every article that can be thought of, preserved by this process, and every visitor is welcome to come in, taste, smell, take away with him, and test in every way the merits of Ozone as a preservative. We will also preserve, free of charge, any article that is brought or sent prepaid to us, and return it to the sender, for him to keep and test.

FRESH MEATS, such as beef, mutton, veal, pork, poultry, game, fish, &c., preserved by this method, can be shipped to Europe, subjected to atmospheric changes, and return to this country in a state of perfect preservation.

EGGS can be treated at a cost of less than one dollar a thousand dozen, and be kept in an ordinary room six months or more, thoroughly preserved, the yolk held in its normal condition, and the eggs as fresh and perfect as on the day they were treated, and will sell as strictly " choice. The advantage in preserving eggs is readily seen; there are seasons when they can be bought for 8 or 10 cents a dozen, and by holding them, can be sold for an advance of from one hundred to three hundred per cent. One man, with this method, can preserve 5,000 dozen a day.

FRUITS may be permitted to ripen in their native climate, and can be transported to any part of the world. The juice expressed from fruits can be held for an indefinite period without fermentation—hence the great value of this process for producing a temperance beverage. Cider can be held perfectly sweet for any length of time.

VEGETABLES can be kept for an indefinite period in their natural condition, retaining their odor and flavor, treated in their original packages, at a small expense. All grains, flour, meal, etc., are held in their normal condition.

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There is no change in the slightest particular in the appearance of any article thus preserved, and no trace of any foreign or unnatural odor or taste. The process is so simple that any child can operate it as well and as successfully as a man. There is no expensive apparatus or machinery required.

A room filled with different articles, such as eggs, meat, fish, etc., can be treated at one time, without additional trouble or expense.

☞ **In fact, there is nothing that Ozone will not preserve.** Think of everything you can that is liable to sour, decay or spoil, and then remember that we guarantee that Ozone will preserve it in exactly the condition you want it for any length of time. If you will remember this, it will save asking questions as to whether Ozone will preserve this or that article—**it will preserve anything and everything you can think of.**

There is not a township in the United States in which a live man cannot make any amount of money, from $1,000 to $10,000 a year, that he pleases. We desire to get a live man interested in each county in the United States, in whose hands we can place this Preservative, and through him secure the business which every county ought to produce.

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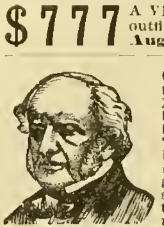

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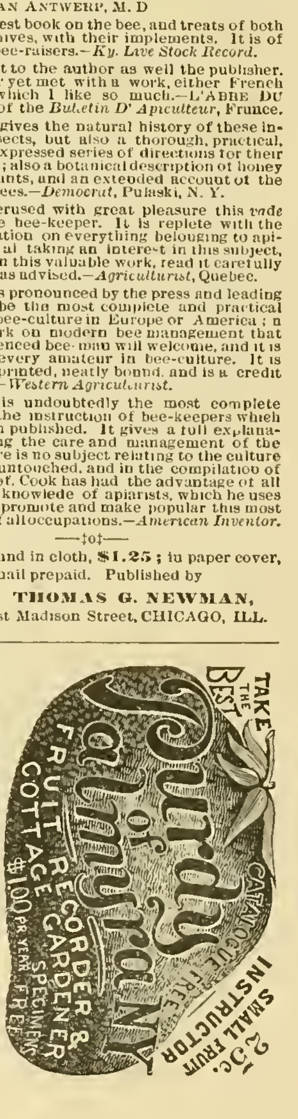

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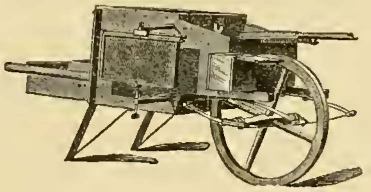

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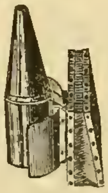

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Weekly Bee Journal—Its First Year.

Almost one year ago we reluctantly ventured upon the doubtful experiment of publishing the BEE JOURNAL weekly, as we fully appreciated the vast amount of unremitting labor to be expended upon it. Many of our friends, especially among those most competent to realize the task, advised us against taking the step, anticipating either a diminution of interesting matter in our pages, or a lack of ability to keep a weekly up to the proper intellectual standard. But we could not resist the impulse—a monthly visit to our readers was too infrequent to do all the work we hoped to accomplish; our space was too limited to accommodate our numerous correspondents; four to seven weeks was too long to withhold answers to letters seeking information, the delay often proving embarrassing to the inquirer, and scientific discussions covered too great a breadth of time to be of the most practical value.

We are free to admit, however, that the above were not the only considerations which induced the change—we felt that with a weekly issue we could do more to advance scientific apiculture, to correct existing abuses, to incorporate fixed and rational reforms, to further the pecuniary interests of our readers, and to develop a great source of national wealth. It has been a gratification to know that our more intelligent bee-keepers appreciate our labors in their behalf, and that all honest men approve our efforts in correcting abuses. Many scores of letters have given us encouragement. The following is just received from Mr. W. Z. Hutchinson, correspondent of the *Country Gentleman*, and with whose writings bee-keepers are familiar:

> In my humble opinion, the present volume of the BEE JOURNAL is FAR superior to any of the past volumes. I fear that we do not all realize how much editorial work, *work*, WORK, has been expended upon this volume. I thank you for the work that you are doing for us bee-keepers.

The current volume of the BEE JOURNAL will comprise, when completed, 416 pages, containing 1,664 columns, treating upon every variety of subjects relating to bees and bee-culture, and all furnished postpaid for only $2. Many articles published in the JOURNAL the past year for the first time. have each been worth the price of subscription to many readers. We have given nearly 100 pages of editorial reading, have to the best of our ability answered all queries asking for information, have carefully collated from and accredited to our exchanges such articles as we thought would be of general interest, and have carefully revised correspondence when necessary to make it acceptable to the public and creditable to the writer.

And yet we are not content. We find our correspondence is accumulating, notwithstanding our enlarged space, and the present form of the BEE JOURNAL does not give perfect satisfaction, though it is the best we could do one year ago. We have, therefore, perfected arrangements to make further improvements for the coming year. We shall somewhat reduce the size of the pages, and print 16 instead of 8, as now, giving about one-fourth more reading matter. This will give a volume of 832 pages, or 2,496 columns for $2, and when bound at the end of the year, will make a book worth ten times its cost to any bee-keeper.

The Monthly and Semi-Monthly editions will be supplied in the same manner as heretofere, but of the newer form. We cannot refrain from advising our Monthly and Semi-Monthly subscribers to take the Weekly instead, though it be for a shorter time. Articles of great interest frequently appear in intermediate numbers, as also rejoinders in controversies, which are entirely lost to the Monthly and Semi-Monthly subscribers. Try the Weekly BEE JOURNAL for 1882—we think you will not regret it.

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The Successful Wintering Problem.

Notwithstanding much has been said and written regarding the requisites for successful wintering, the problem seems about as far from a satisfactory solution as it was a score of years ago. In Russia, in order to evade the rigors of winter, a deep pit or subterranean vault is dug in the ground, and the "gums" containing the bees are piled one above the other several feet below the surface; then a straw hut is constructed above-ground, over the pit, with a door for ventilation in the leeward side, to carry off the moisture and heat from the bees. If 50 per cent. of the bees survive till spring the bee-keeper feels much encouraged. In our Central and Northern States, cellar repositories seem to have met with more favor than perhaps any other plan; still, some experienced and comparatively quite successful apiarists are found among the advocates of numerous other methods, most prominent of which are chaff hives on summer stands, double-wall hives, frame hives with deep combs, and box hives or "gums." Yet, in view of the disasters of last winter, it must be admitted that each of the more popular plans so far practiced has proven more or less a disastrous failure, and although much progress has been made in the science of apiculture, in this most important branch no advance has been made.

To account for the many failures of all the popular methods numerous theories have been put forth by the wise ones, while others stand aghast at having had their pet theories proven mere chimeras; and even the most confident look forward with trembling anxiety, scarcely knowing which is the strongest sentiment—hope or fear. Breed our bees up to what standard we may, create a popular demand for honey till it is as eagerly sought after as bread, build up the price till our profits count cent. per cent. when Providence ordains a favorable winter, and yet, with all these, there is a nervous anxiety about the business that is not dispelled till we have passed the last nipping frost of spring. Disguise the fact as we may, until some method for wintering is devised—that is, a method which will prove as safe and certain for a medium weak colony as a strong one; which will at all times give bees access to their stores let them be in what part of the hive they may; that will be as safe in a long, inclement winter, such as the last, as they were the winter before; that will carry a colony through on the lowest minimum of honey; that will be cheap of construction and easy of application—until then, the success attending bee-keeping will be more or less a matter of chance.

All the best apicultural authorities of the present day, as well as those who have gone before, give the following as absolute requisites for safe wintering: 1. An even temperature ranging from 42° to 45°. 2. Complete expulsion or absorption of moisture from the body of the hive. 3. Perfect freedom from outward disturbances. 4. Protection of stores from contact with frost. 5. Protracted isolation from atmospheric changes in spring. 6. Exclusion of light. 7. Sufficient stores for winter consumption. It is generally admitted that with these seven contingencies provided for, there will be no hazard in wintering, and it is further admitted, that no plan so far practiced combines all these essentials.

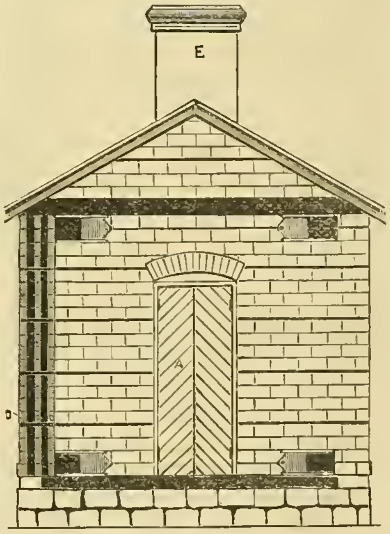

Fig. 1.—Front View of Building,

At the recent Northwestern Bee-Keepers' Convention was exhibited a model for a bee house in winter, and dairy house in summer, patented by Mr. W. L. Drake, which may be of interest to bee-keepers, and if it possesses the merits claimed for it by the inventor, is certainly worthy of investigation. The house is constructed of brick, with triple walls. Fig. 1 gives an end view of the house, with door closed, and drafts opened. O gives a view of the corner bricks removed, exposing the air-spaces in the wall. The outer air space completely envelopes the middle and inner brick wall, and is intended for a circulating air chamber. The inner space is a dead air chamber, completely enveloping the inner wall, and entirely disconnected from the outer air chamber. E is a flue connecting with the body of the room, for the purpose of drawing off the heat and permitting the escape of noxious gases generated by the bees. It will be observed the flues or dampers connected with the outer or circulating air chamber can be opened or closed at will, to regulate the temperature in the outer space, and this again can be discharged in the main room by means of flues piercing through and independent of the dead air or second space. The floor and ceiling are each double, air-tight, and connected with the dead-air space. The outer or front door is a double battened door, with an inner or sash door.

Fig. 2 gives a ground plan of a building 12x18 feet, with partition containing air-space, and showing arrangement of hives in the rear or bee department, which gives ample room for about 150 colonies in Langstroth hives. The front division can be used for a root and fruit house, or for any desirable purpose requiring a modified and even temperature; it can also be used for a bee repository when they require more room. H is a double-sash door dividing the two apartments.

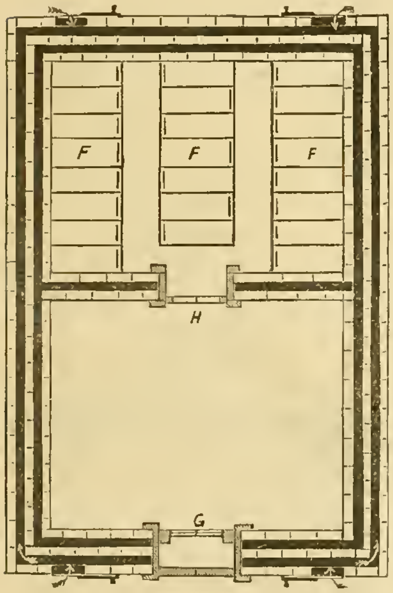

Fig. 2.—Ground Plan of Building.

The inventor claims the following advantages for his building: 1. An even, controllable temperature at any desired point; 2. Complete exclusion of dampness from the room, and absorption of moisture from the bees; 3. Perfect seclusion from outward disturbances; 4. Freedom from atmospheric changes; 5. Protection of stores from mold or frost; 6. Absolute exclusion of light; 7. Economy in the consumption of winter stores; 8. Avoidance of spring dwindling; 9. A saving in stores and chaff-packing in one season, with 100 colonies of bees, to pay cost of building; 10. A perfect refrigerator and dairy house for summer use; 11. Cheaper construction than an ordinary 12-inch brick, or a stone-wall cellar of same dimensions.

Apiary Record Book.

Since publishing the item requesting bee-keepers desiring an apiary record to send in their names, we have received many orders for the book, but each one has suggested some specialty he desired embraced in the book, as, for example, Dr. L. C. Whiting, of East Saginaw, Mich., writes:

I see in the BEE JOURNAL to-day that you are about to get up an apiary record. I want such a book, and I want it so arranged that I can see at a glance the color of the queen, whether dark or light, also whether the bees are quiet or cross.

We have received some valuable hints, and after much study and time spent in getting up a form, think we have one that will suit nearly all. It will devote two pages to each colony, embracing between twenty and thirty headings, neatly ruled and printed, with space at bottom for remarks, and so arranged that a single glance will give a complete history of the colony. Each book will also contain printed rules for the apiary, and twelve pages ruled and printed for an apiary cash account. As each book is intended for a several years' record, it is gotten up on first class paper, and strongly bound in full leather covers. There will be three sizes, sent postpaid, at the following prices:

For 50 colonies (120 pages)......	$1 00
" 100 colonies (220 pages)......	1 50
" 200 colonies (420 pages)......	2 00

Send in your orders at once, and the books will be forwarded as soon as completed.

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Binders for 1882.—We have had a lot of Emerson binders made especially for the BEE JOURNAL for 1882. They are lettered in gold on the back, and make a nice and convenient way to preserve the JOURNAL as fast as received. They will be sent post paid by mail for 75 cents. To all who send during this month (December) for the JOURNAL and binder for 1882, we will send both for $2.50. We do this to encourage all to get the binder and preserve the BEE JOURNAL for reference, and to save us the expense of removing the name from our type mailing machine, and then resetting it in January or February.

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Comb Honey.—Mr. G. M. Doolittle, who was awarded the celebrated Thurber "gold medal" in 1877, for "the best honey put up in the most marketable shape," will write a series of articles for the Weekly BEE JOURNAL during 1882, on "the production, care and sale of comb honey." Mr. Doolittle is well known to our readers as a practical and successful bee-master, and puts his comb honey up in such excellent style as to command *more* than the regular market price for it. His articles will be worth much more than the price of the Weekly to any comb honey producer.

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☞In this number we inclose a blank for all whose subscriptions end with 1881. Fill it up with name, postoffice, county and State, when you remit. If not convenient to send the money now, send us a postal card saying you want the JOURNAL, and it will *not* be discontinued. We hope all will renew their subscriptions at once.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

The Profits of Bee-Keeping.—A correspondent of the *Ohio Farmer* gives his experience as follows:

In 1868 I commenced with 1 colony of Italians in an American hive. I was a "raw hand," but liked to work with bees, and one year's experience gave me confidence. That year the 1 increased to 3, and I sold 40 lbs. of honey at 55 cts per lb. The following year, with the help of an experienced bee man, from whom I bought the bees, I divided and increased to 7, but I only sold $5 worth of honey. Through mismanagement I lost 3 colonies that winter, and commenced with 4 in the spring of 1870. It was a good year and I increased to 15 colonies, and sold $65 worth of honey. The next year I sold honey and bees to the amount of $100 and had 20 colonies left. I 1873 I increased my apiary to 40 colonies, all Italians, and sold $150 worth of honey and bees. In 1874 I maintained the original number, and sold $123 worth of honey and bees. For the 6 years the account stands as follows:

DEBTOR.	
First colony....................	$ 20.00
52 hives with right............	130.00
Total...........................	$150.00
CREDIT.	
By bees and honey sold........	$453.00
By 40 colonies at $10...........	400.00
	$853 00
Balance in favor of bees....	$703.00

◆

Selling Honey to Best Advantage.—Mrs. L. Harrison, in the *Prairie Farmer*, talks very wisely on this subject. She says:

Some persons are better producers than sellers of their productions. Our success as apiarists depends, in a large degree, upon our ability to dispose of the product at paying rates. If we are amateur bee-keepers or farmers, and have but little to sell, we should endeavor to get a fair price for what we do, knowing that if we take a low price for what we have, it may wrong another person who depends for his livelihood upon this "business," always remembering,

> "To do unto others, as you would
> That they should do to you.
> What e'er is honest, just and good,
> With all your might pursue."

An article to sell well should please the eye, and if for food, should be toothsome and agreeable to the palate. To meet the demand of large cities, comb honey should be stored in small sections, weighing from 1 to 2 pounds.

Some apiarists insist that these should be glassed. We have read in history that Cleopatra dissolved pearls and drank them, but we have never known of any one using glass as victuals and drink.

When you have a good article and know that there is no mouse hidden in the meal, such as glucose, etc., and can then look a person in the eye without flinching, you are in the right condition to demand a good price and get it too; and the next season the buyer will seek for you, instead of your hunting for him. Extracted honey put up in glass jars and tumblers is too dead to bury—glass jars was the murderer. A farmer's wife came into the grange store in this city with several gallons of extracted honey for sale. A number of persons were in the store at the time, and judging the lady to be honest, immediately purchased all her honey; while at the same time there were jars and tumblers, labelled honey in attractive form, that had become old settlers. We know a farmer who lives 5 miles from any town, and has an apiary of 50 colonies which he runs exclusively for extracted honey, and is not able to supply the home demand.

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Honey as Food.—The *Michigan Farmer* advises the daily use of honey, on account of its beneficial effect on health. It says:

We desire to commend its daily use to every family in the land. We believe it to be one of the most healthful sweets that can be found, and well adapted to common use. It seems to us very desirable that Michigan should produce a large share of her own table sweets. Could honey be brought into general use, thereby creating an extensive home market for it, we believe it would tend to encourage the culture and production of honey. Prof. Cook, our own State apiarist, of whom we are so proud, says Michigan is naturally adapted to the production of honey. Let Michigan people use it—put it on the table every day. It is a healthy sweet for children, and children must have sweets just as the Irishman must have potatoes. The honey bee feeds upon the healthy juices of healthy plants, and honey must partake of the quality of the blossoms of the plants and trees from which it is gathered. The use of this article should become so common and general that a honey store or depot would be found profitable in every large town. We believe in encouraging the bee-men and women, and if every family in the land would make honey an article of daily use, in place of the unhealthy syrups, then all concerned would be benefited.

◆

The Poppy and the Bee.—The following amusing dialogue illustrates the advantage of bees to flowers. It is from an exchange:

A wild bee, which had flown far without having breakfasted, at length entered a garden, the first he had seen.

"What a Paradise!" he exclaimed.

The first thing that attracted his attention was a full-blown poppy; but, accustomed only to mint, wild thyme and such like fare, he approached the gaudy beauty with some diffidence.

"A little pollen, please," he at length ventured to say, in the humblest manner.

"Be off! be off!" was the ill-natured reply.

The poor bee was almost fainting with hunger and fatigue, and asked leave to rest himself for a little.

"Be off!" returned the haughty flower; "I don't encourage idle vagrants like you. Stay at home, and you will not have to complain of being tired; sit upon your own stalk, and you won't have to support yourself by begging. Be off."

Did the silly poppy imagine that butterflies, bees and such-like creatures, were nothing else than wandering blossoms? However this may be, it was overheard one day talking to itself after this fashion:

"What is a flower born for, I should like to know, but to see and be seen and admired? These pansies, with all their pretensions, are such a set of flats! so low-born and ill-bred!"

With the gardener, the great judge of plants and the arbiter of their fortunes, the pansies were especial favorites; and he took great pains and no small pleasure in rearing them.

It so happened that he passed just as the poppy was exclaiming her last "be off!" and scornfully shaking her glowing petals after the retreating bee.

Looking angrily at the flower, he said: "What is sweeter than honey? and how should we have honey without bees? and how should bees live if all flowers were as vain and empty-headed as you?"

So saying, he plucked it up by the root and threw it over the garden wall.

The bee cheerfully resumed its flight and soon alighted in the midst of a plot of mignonette, where it was regaled with the sweetest nectar.

CORRESPONDENCE

For the American Bee Journal.

Pollen—Its Relation to Dysentery.

F. DELLA TORRE.

From certain inquiries recently received, it appears that my few remarks at the National Convention at Lexington were not altogether understood. With permission, I will reply through the BEE JOURNAL.

I stated that pollen (pure) was not the cause of dysentery; that so far as is known, bees have been wintering on combs containing pollen since the creation, in hollow trees, with very good results, and that "bacteria" was only theory, proved so by me from many experiments, among which I will mention one easily understood, viz: I tried to inoculate healthy colonies by removing all their stores and replacing (in mid-winter) with combs from colonies in the worst stages of dysentery; instead of contracting the disease, they cleaned up the dirty combs, so that none but an expert, by noticing the wood-work of the frame, could tell they had ever been affected. I stated, I believe, that I knew the *one and only direct cause* of dysentery, proved beyond doubt or question, by actual experiments, at all seasons of the year, and for three consecutive years.

This sounds "very large" for one man's share of new discovery, if it were such, but it is not, we have all known the fact for years, without giving it the importance that it merits; but I do claim the right to bring this before my fellow-apiarists, and to compel their attention in any way I can to the importance of an exact understanding of these facts.

The amount of pollen digested by adult bees is practically nothing, and under the most favorable conditions, no matter what amount be eaten, it will all be voided as a dry dust; if the conditions are unfavorable, dysentery is the result. These are both statements which all admit, and say, as a logical consequence, that pollen is the cause of dysentery, and "that settles it." Let me draw a comparison, clumsy though it be: it may serve to convey my meaning: If it were not for gunpowder, bullets would be very harmless for the purpose of destroying life; if it were not for moisture, pollen would not only not produce death (like the bullets mentioned above), but from it would spring life itself, in fulfilment of the God-given mandate, "increase and multiply." Why is it, then, that pollen, ever ready to produce life, should be accused of defeating the very object for which it is created, when the whole fault is our own, because we choose to draw wrong conclusions?

If I could only convince the fraternity of the importance of ever keeping this word "moisture" constantly before them, whether in debate or in the apiary, it will prove for itself better than I can, that it is the cause of dysentery, and an ever-present cause, for wherever there is a cluster of bees there you will find this subtle enemy to bee-life being produced.

Again, if it was pollen that produced dysentery, would not all bees die that have any in their hives in winter? I do not call a colony in normal condition in this State, unless it has several pounds of pollen at this date. When pollen is covered with honey it will remain unchanged for a long period; but when exposed to damp air it, like all other organic matter, decomposes —in plain English, rots.

Fresh, sound vegetables and fruits are healthy for people, and fresh, sound pollen is harmless for bees, if they choose to eat it. Rotten fruit or pollen, if persisted in, will cause sickness and death to both of the above objects. This is not an abstruse subject (I wish it was), but it is so simple that it foils one's attempt at a lucid explanation.

Oettl's golden rule is without a rival for summer, but it should be supplemented for winter to read, "Keep your pollen dry." To do this your hive must be dry, and to effect this desirable object mere mechanical absorbents, chaff, sawdust, leaves, etc., will not do, for if the air outside is damp, that in the hive is more so. Then it is that the pollen absorbs moisture and rots, giving off sulphuretted hydrogen gas, which is poison to bee life, besides the very offensive odor which makes them restless that this gas has, is the first indication of dysentery. We must use chemical absorbents. The cheapest is a quick-lime cushion division-board, and that is the whole story, then if you want any dysentery to experiment with you must do as I have done—buy it.

Baltimore Co., Md., Nov. 22, 1881.

For the American Bee Journal.

Experiments in Feeding Bees.

WM. STOLLEY.

Since Sept. 29, I have attempted an experiment with my bees to which I was led, partly by my good success in wintering them safely last season (nearly exclusively on syrups of coffee A sugar), and partly because several correspondents of the AMERICAN BEE JOURNAL have suggested to take from the bees all their natural stores (in particular the pollen), and feed coffee A sugar syrup instead. To be as safe as possible in prosecuting my plan, and be ready at short notice to put my bees in proper condition to go into winter quarters, I proceeded in the following manner:

On Oct. 18, I extracted all frames filled with partly unsealed honey, and those containing the most of pollen, but leaving in each hive 5 frames containing the most of sealed honey and the least of pollen. After extracting, I selected the choicest of the comb and put back in the center of the brood chamber for each colony according to strength, 2 or 3 frames thus emptied only, and contracted the space by division or chaff boards. Thus arranged, I allowed my bees to partake of the honey adhering to the extracted comb, as well as to suck all the cappings dry. After they got through with it, I commenced to feed the sugar syrup out of large feeders made out of 1½ inch thick planks, from 8 to 12 inches wide, and about 2 feet long. About 10 of them were prepared with grooves ½ inch wide and probably ¾ inch deep. Thus I could feed about 2 gallons at one filling.

All the feeding was done outside the hive near my bee house, but out of sight of their hive. Since I have no strange bees to contend with, I thought this the quickest and best way, and can say it worked to my entire satisfaction, and but very little fighting among the bees took place, since there always was plenty of food for all the busy workers. According to the prevailing more or less suitable weather for the bees to work, I fed respectively per day, 15, 20, 25, 40 and 30 lbs. of coffee A sugar; total, 155 lbs. in 6 days. Adding about the same weight of water, constituting the syrup fed, the bees carried into their hives fully 310 lbs. in 6 days, not counting what honey they got from the extracted comb and the cappings fed to them.

After feeding the mentioned quantity of sugar syrup, I weighed each hive again as I also had weighed before feeding. The result was that all colonies combined had gained but 127 lbs. net.; hence, there was an actual loss of 28 lbs., even of the dry sugar fed, besides the water fed with the sugar. Fearing that cold weather might set in before I could complete and thus test the matter as to wintering bees on coffee A sugar exclusively, I concluded to stop feeding, and arranged my 14 colonies on Oct. 26, by leaving from 20 to 28 lbs. of sealed winter stores in each hive according to strength of each colony.

I contracted the space inside the hive to from 6 to 8 frames; put a hole ¾ of an inch through the comb, 2 inches below top bar, and after laying 2 cross-pieces over the middle of the top-bars, thus making 2 winter passages clear over and through the comb, I put on the clean woolen quilts, filled the supers with bags of loose texture filled with wheat chaff and straw. Thus prepared, they will be moved within a few days now from the front of my bee house to the back wall, and packed in the same manner as last winter. Yesterday we had, after quite a severe cold, a very warm day, so that the bees had a good flight, while this morning at sunrise the mercury indicated 18° F.

Commencing the season with 6 colonies, I now have 14, and took from them 230 lbs. of extracted honey, which is all spoken for at 25 cts. per lb. My bees have a total of 353 lbs. of well-sealed winter stores, of which 155 lbs. is coffee A sugar syrup, and 198 lbs. of honey. Whether they will winter as well as last winter remains to be seen.

Grand Island, Neb., Nov. 17, 1881.

For the American Bee Journal.

Transferring Bees.

A. B. MCLAVY.

I have watched with no little interest the proceedings of bee-keepers' conventions this fall, for a practical and concise essay on the transferring of bees. I do not think that it has received the attention it deserves, as it is the first step in improvement of manipulation of bees. Whilst it is true that no special skill to accomplish it after it is understood, is required, yet the "modus operandi" is a stumbling block to many. I do not seek to impart knowledge, but to gather it in my study of bees, and whilst the directions given below are, as far as I know, original with me, if any improvement is suggested, I will gladly adopt it. I have tried almost all the ways already suggested. I have found none that operate as satisfactorily.

If the bees are already where you wish them to remain, well and good. If to be moved from another locality, we will select a place where we wish them to remain. Now we use the Langstroth hive with a movable bottom board; supposing others do also, we will say in the first instance, slip the bottom board under the old hive, with the front of the hive and the opening for ingress and egress on the front edge of the board, and place your alighting board just as you wish it to remain, often transferring. The same directions apply to those which you have brought home. If you intend using a painted hive, now paint the old hive just the same color the new one will be, and do not disturb the bees any more for 2 or 3 days. In that time they will have gotten used to the new order of things, especially the bottom and alighting boards. Now, supposing the day is pleasant, we will proceed to transfer. We will get our new hive in readiness, and place it with a frame of brood (from another colony) therein on the bottom board where the old box hive stood, and put the cover on. Now on a sheet folded once, we will lay the old hive on the ground, say 30 or 40 feet from the place where it stood. If the sun is warm, we get under some tree which is at a convenient distance. Do not lay the hive so that the combs will fall together, but if possible, lay it so that they will stand perpendicular; if they fall together, you may kill a number of bees or your queen. Now with a hatchet or chisel and a billet of wood, cut the nails so as to remove one side of the hive, and with a long knife sever the combs so as to lift it off without tearing them. Now remove, as far as practicable, all the ragged pieces of comb, and if containing honey, put them in a pan, which keep covered.

You have now gotten to combs which are likely to be of service to you; if straight, with a guage stick the depth of your frame, remove therein pieces so as to fit your frames. If they contain honey and are nice, lay them between folds of carpets or blankets, in fact, any kind of cloths so as to keep them nice.

The brood chamber now occupies our attention, here it is, from the eggs to hatching bees. Now with your guage stick, try to get them so as to fit your frames as nearly as possible, always cutting them to "the best advantage," that is, so as to get as large and as straight combs as you can. If, as is likely to be the case, the brood is both above and below the "cross sticks," make them your guide for cutting, removing the brood combs and laying them between fold of cloth or something of that kind, but not on top of each other unless separated by folds of cloth, until all is removed. You have probably before this removed the side of the hive nearest you, so as to get it out of your way. There is now honey comb and bees in the hive—the bees have retreated as you have advanced, and are now likely hanging in the far corner of your hive like bees at swarming time, and the queen is with them and the cluster is probably made up of young bees. You are now to remove the combs yet remaining expeditiously, taking care of the nice combs as before directed, and the scraps are to go to the pan. Now on a previously prepared pad, made by several folds of cotton cloth stretched and tacked on a board of convenient size, stretch 3 or 4 cotton strings cut long enough to go around your frame and tie; lay your brood comb on this, and, having removed the comb-guide from your frame, cut the comb so as to fit the frame nicely, having an eye to keeping the brood as near the center of the frame as possible, cut the drone comb off entirely, and sacrifice the honey for the brood; as fast as you fit the combs in the frames, take them to the hive and put them in, where you shall have 3 or 4 in the hive with the brood opposite each other so as to keep the cluster together, get the old hive now, and take it to the front of the new hive and brush the cluster off; if you watch carefully you will soon see the queen —aid her to find her hive, and you will experience the pleasure of having transferred successfully.

If the honey combs remaining are nice and straight, cut them in like manner to fit your frames and hang them in your hive, if not, supply them with foundation. If you wish to give them the honey back as you will, very likely, and do not wish to be bothered much with it, we will nail thin strips of wood together by making a grate, we will call it, to fit in the second story, and let its four corners rest on four cleats tacked in the second story, and uncap the honey and lay it in this grate. Now turn one edge of the mat back and the bees will go to work to carrying it down.

The point in this mode is this: I find no use for smoke; the operation being performed away from the stand, bees from other hives are not attracted to it. You do not daub the new hive so as to induce robbing. The bees not being intoxicated with smoke repel all bees which are inclined to rob. You are not bothered with the flying bees as they instinctively seek the stand and cluster on the one comb you had prepared for them, and if you choose, the operation can be performed so quickly that robber bees have not the time to make more than one or two trips before you are done; and lastly, but not least, your bees are now in their new quarters—none the worse for wear, as will be attested if you notice, by their bringing out the scraps in less than an hour, and frequently before you have put the top on preparatory to leaving them to themselves.

In a few days (2 or 3) examine the combs; if the strings have not been removed, gently draw your knife blade along the top of the bar so as to cut the strings; lift the frame from the hive and carefully remove them.

If you should be nervous or fear robbing whilst transferring, make a smoke to your windward so that it will pass over the open air.

And now, one word of caution, just here, to the novice: we will say that our judgment dictates feeding back the honey, especially if it is done at a time when there is none coming in. When you have fed back all your honey (which I think ought to be fed at intervals), you will find that your queen has been doing her best to breed up, and as a consequence, she is and will be depleting her stores. Guard against this by after feeding, and see that they do not want, for she will very likely have a large family on her hands.

I will remark that this plan has worked so well with me that really, when it is through, you feel like there is something else yet to come, but you wonder what it is. You look at your hive—you see no robbing, and if there is anything to work on, you will see the bees go and come with so little excitement about their home, that it really seems that nothing has happened.

From Western Stock Journal and Farmer.

Report on Bees—1881.

O. CLUTE.

I began the season with 30 colonies which had survived the fearful winter, but were by no means strong. Most of these were Italians, having queens grown the previous year from an imported mother bought of Mr. Dadant.

My hive is the Simplicity. All hives are exactly alike. Hives are so made that one can be set on top of another, so as to make a hive two or more stories high. My frame is the Gallup, just 11¼ inches square.

Believing that it would be more profitable to increase my bees than to get surplus honey this year, I planned the season's work mainly with this view, expecting to get only so much honey as could be secured while making a large increase.

In order to secure straight worker combs, and to save the time and honey consumed by the bees in making wax, I used nearly 200 lbs. of comb foundation.

An attempt was made to prevent all natural swarming. It was not entirely successful, for 3 colonies issued, one of which left for parts unknown. In making my increase, I practiced the nucleus system of swarming.

It was my purpose to increase in such a way as to have about doubled soon after white clover should open; then, if possible, keep them at work without any attempt at further increase of colonies until after linden and white clover were gone; then again to double the number and get all in as good condition as possible to gather the fall harvest. I was able to do a little better than I had planned.

Because it seemed easier when I was working for increase of colonies, to get my surplus in the shape of extracted honey rather than comb honey, I determined to make no effort for comb honey, but depend entirely on extracting for my surplus.

This year "winter lingered long in the lap of spring." Great snow banks were on my lawn until April 10. April 15, the bees, which for more than 5 months had been in the cellar, were set out. April 17, they began to bring in pollen. At a single bound the weather passed from winter to summer. The last half of April and all of May the weather was warm and clear. There was hardly a day on which the bees could not fly. The spring bloom was profuse. Willows, elms, maples, cotton-woods, box-elders, cherries, apples and raspberries opened in rapid succession, and gave sufficient honey and pollen to keep up brood-rearing and to allow a little to be stored. Honey from raspberries had ceased but a short time before the earliest white clover was open. Soon the fields were covered with its starry carpet of green and white, but it yielded honey only moderately. At no time during the season did it yield so largely as is sometimes reported. Linden gave an abundance of bloom and it seemed to yield honey, but several rainy and windy days kept the bees in the hives, and washed the honey from the bloom. It yielded but a moderate surplus. White clover continued to yield in small quantities after linden was gone, the season seeming to be prolonged by copious rains. After the middle of July the weather became dry, but the ground was so saturated that the clover continued to bloom for some time. The dry weather was severe and long-continued. Very little rain fell for 6 weeks. I had expected that there would be scarcely any fall bloooom, and no fall honey worth mentioning. But the reverse was the case. We had a heavy flood in the Iowa river about July 12. The water swept everything before it. The bottom lands were cleaned of all crops and weeds. Then heartsease grew up in great profusion. There were many acres of it. It began to yield soon after white clover ceased. The flow from it was not very copious, but it was steady. Frosts held off for full a month longer than usual, and during this added month the days were mostly clear and warm.

From the 30 colonies I increased to 140. I took 2,500 lbs. of honey, nearly all extracted. The honey is selling at 15 cents a pound. The crop is worth $375. The bees are worth $8 a colony, making the 110 colonies of increase worth $880. Total, $1,255. My expenses for hives, frames, foundation, paint, labor and sundries were $305, giving a net gain of $950. My bees in the spring were worth $10 a colony, or $300 for the 30 colonies. The gain has therefore been 316 per cent. But the winter is yet to come, and it is quite possible that it may bring dire disaster to my "blessed bees." In the spring I will report my method of wintering, and its success or failure.

Iowa City, Iowa, Dec. 1, 1881.

For the American Bee Journal.

Our Bee and Honey Report for 1881.

L. C. ROOT & BRO.

In giving the results of our present season's operations we desire to say, first, that such results could only be attained under very favorable circumstances. Such reports without explanation may easily lead the uninformed to engage in the business expecting similar results at once. Bee-keeping, like all other pursuits, must be made a study, and it can only become a success by close application.

We commenced in the spring with 160 colonies, most of them in good condition. As is generally known, the early spring was very unfavorable for all operations with bees; in fact, we have never, with one exception, seen a more discouraging outlook.

During fruit bloom the weather was very favorable, and from that time everything was unusually so.

Our bees were located in 4 places, 40 colonies in each; one apiary 7 miles north, one 4 miles south, and one 7 miles southeast. Upon this point of locating bees, the number of colonies that should be kept in one place, etc., an entire article might be prepared. By the adding of combs at proper tmes and by thorough attention, our colonies became extremely populous.

If space would allow, we might consider a question at this time which is of extreme importance to every bee-keeper, namely, that of increase.

We will simply say that with us there have been two seasons during the past 10 years, when our stock might have been doubled and at the same time more surplus have been secured than to hold all of the force to the original colonies. With the uncertainty of a continued yield of honey, we find that we must be in readiness to secure honey rapidly during any short period that it may be afforded. Our conclusion is that, for our location, very moderate if any increase is preferable; we have therefore made no increase. When extracted honey is secured, swarming is easily controlled. We do not advise the entire prevention of increase, for the average bee-keeper. Probably most beginners will succeed best with a moderate increase, but we advise that it be limited to at most one colony from each good colony even in best seasons.

Let us say that the combs we had packed away which contained the honey gathered late in the fall previous, proved of great value. A nice comb containing 3 to 5 pounds of honey with the cappings broken by rubbing a knife over it and then placed in the center of a strong colony, would be rapidly emptied, and the cells would be readily occupied by the queen.

By June 1, clover and raspberries afforded honey bountifully; in fact, we have never known clover to yield so much honey. We extracted our first honey to any extent June 28. We will give the results of our best apiary: June 28, 1,500 lbs.; July 9, 2,575 lbs.; 16, 2,000 lbs.; 25, 26, 3,140 lbs.; late honey, 512 lbs. Total, 9,727 lbs.

From one colony of best Italian bees at our home apiary, we took as follows: June 25, 96 lbs.; July 4, 62½ lbs.; July 8, 114 lbs.; July 12, 66 lbs.; July 19, 40½ lbs.; July 22, 36 lbs.; Aug. 5, 42 lbs.; Aug. 27, 27 lbs. Total, 484 lbs. June 26, this colony gathered over 20 pounds during the day. July 10, the hive was weighed at intervals during the day, showing results as follows: At 1 p. m. 155 lbs.; at 4 p. m. 160 lbs.; at 5 p. m. 163 lbs.; at 6 p. m. 166 lbs.; at 7 p. m. 171½ lbs.

Our entire yield from the four apiaries was 32,809 lbs. With one extractor we took in one day 2,760 lbs. This we believe to be the largest amount of honey ever taken in one day with one extractor.

Our fall yield of honey was almost entirely cut off by the extreme drouth. We have never secured a finer quality of honey than during the present season. Our bees, as well as bees in general, go into winter quarters in very good condition. On Nov. 17, they had a free flight. We placed them in winter quarters on Nov. 21 and 22, which practically closes the season of 1881.

We give this report to induce a more thorough examination of the best methods of bee-keeping; the advantages for so doing may be found on every hand. Besides the bee periodicals devoted exclusively to this interest, every agricultural paper of note in the land has its bee-keeping department, noting the various operations of advanced bee-culture.

It is a matter of greatest surprise to us that, with these opportunities which may be so easily taken advantage of, so many may be found who are yet contented to keep bees in box hives and in the old way.

Mohawk, N. Y., Nov. 25, 1881.

For the American Bee Journal.

The Disposal of Honey.

JAMES HEDDON.

I wish to say to Mr. Geo. W. House, that I still believe I am right in saying that buyers are "bears," and commission men "bulls." Dealers like low prices, because it increases sales, commission men desire to sell our goods at high prices, because it satisfies us better, and insures to them our consignments, thus increasing their sales. The bee-keeper spoken of by Mr. House on page 380, should have limited the selling power of that firm to stipulated prices, and if they would not be limited, it would have shown they were not the right firm. If ever the demand for honey becomes staple (which I still am in doubt about), then the wholesaler may do as well by us as the commission man. But, as Mr. House aptly says, "Facts are of great value."

For the past 15 years we have had one or more wholesale buying houses in Chicago—houses offering to buy a commodity that had no fixed and regular price. They bought the honey of the inexperienced, but finally we found that the commission houses could and did sell to them and others for 20 to 40 per cent. more than they would offer us, and consequently the commission men have the trade to-day. It is no infrequent thing to find these commission men selling odd lots for these buyers. So much for comb honey.

How about extracted? Commission men handle this but little in Chicago. Buyers have control of this style of bee product. Look at the prices. Comb honey 20@22c.: extracted honey 9c. We have been told that extracted honey was really worth the most; was all pure honey—no indigestible wax to swallow. How long is it going to take consumers to find this out?

Does it not seem to argue that if honey is a staple, or anything like it, comb honey is really worth more than twice as much as extracted? If it is not, then honey is nowhere near a staple yet. How is it—which way shall we have it? Or is it that one being in the hands of commission men, and the other in the hands of buyers, makes all this difference?

With the use of our best comb foundation, I feel sure there is no such difference in the cost of production, and if in this I should be mistaken, and cost of production should be urged as the argument, then it follows that the demand is below the supply, for such a state of things gives all the favors to the consumer. If the benefits arising from the invention of the honey extractor are all in the hands of the consumer, then it must be that demand does not keep up with the supply, or that the product is being badly handled, or something is wrong, somewhere. Where is it—in my reasoning, or where? Why not tell us now?

Bees are flying lively to-day (a month or more later than last season), and 40 colonies put into cellar a week ago are still as death. If this winter continues with its present characteristics, will not cellars get into disrepute again?

Dowagiac, Mich., Nov. 30, 1881.

[Our correspondent evidently labors under a misapprehension of the meaning of the word "staple." Webster defines it:

> 2. Established in commerce; settled; as a *staple* trade.
> 3. According to the laws of commerce; fit to be sold.
> 4. Regularly produced or made for market; chief; principal; as *staple* commodities.

It is used with the same signification in commercial parlance. It does not follow that the price for different grades should be uniform, or even proportionate one to the other; if honey commands a ready sale, and is quoted in the price-lists as marketable, it has become a staple, even though one kind or grade brings triple the price of another. That commission men handle one kind and jobbers another, makes it none the less a staple.

In regard to uniformity in price, one with another, we find honey is no exception to the general rules of commerce. There is also less variation in figures, taken one city with another, than in almost any staple article.

That there is an unjust difference in the prices of comb and extracted honey may be true; it may be equally true that, reckoning failures with successes, comb honey costs more than double as much as extracted, by the time it is placed upon the market—that is, take the total production, additional freight charges and destruction in handling, combined with its lesser production, might make the difference.

But there are many other reasons for the disproportion in prices, chief among which (as none knows better than our correspondent) is the prejudice which exists in the popular mind regarding everything purporting to be extracted honey. In view of this fact, the Bee Journal has been persistent in its advice to build up home markets, where the integrity of the producer would be a guaranty of the purity of the product.

From a hygienic standpoint, extracted honey is "really worth the most," from a commercial view, it is not; but we are convinced if the infamous traffic in glucose and other adulterants was stopped, except under their proper names, extracted honey would be at least an equal favorite with the comb, at equally as good figures.—Ed.]

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Translated from "Bienen Vater."

Items of Interest from Germany.

BY A. R. KOHNKE.

Extract Only Capped Honey.—Mr. Brun, a bee-keeper, sold to a man some newly extracted honey. After a few days the man called again bearing a certificate from a chemist containing a statement of the results of an analysis of the honey to the effect that though the honey was otherwise pure it had been largely diluted with water. This had, of course, not been the case, but the honey had been extracted before being capped. To convince his man of the purity of his honey he took him out to the apiary, extracted some of the same kind and quality, which was as thin as that the man got before. The man, after obtaining such ocular proof of the purity of the honey, apologized for his conduct, for he not only demanded the return of his money but threatened to expose Mr. B. as a fraud; but instead of that he now bought more honey of the same kind, being well satisfied with it. But Mr. B., the bee-keeper, was not, for he could not help but admit for *good* honey it was *too thin*. So he sent some to another chemist to have it analyzed. The verdict returned was, honey pure but too thin; spec. gr. 1.39, which for good honey should be at least 1.42, but generally is 1.45. Moral: Extract only capped honey.

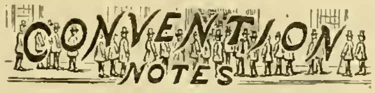
The Secretion of Nectar by Honey Plants.—How often do we hear the complaint: "The clover, or buckwheat, or basswood was in full bloom, but did not seem to yield any honey." It is of the utmost importance for every bee-keeper to know why many honey plants under apparently very favorable conditions yield no nectar. To discover the cause, and if possible solve the problem, I have made experiments for several years in this direction. Two years ago, it was about the time of the rape and white clover bloom, which always furnished a bountiful harvest for the bees, that cold rainy weather set in, so that the bees were not able to gather sufficient winter stores, which would have been the case if the weather had been more favorable. To furnish the bees a substitute I sowed 12 acres in buckwheat, but without manuring. At the beginning of August the buckwheat looked beautiful, promising a good harvest of honey, but no bees went after it, nevertheless the weather was all it could be wished for. The yield of grain of this buckwheat, when threshed, was very poor indeed. Sending a sample of the soil of that field to a chemist to have it analyzed I was told that the buckwheat could not possibly yield any better because the soil lacked in nitrogen, etc., but especially in lime. This led me to suppose that, inasmuch as every plant needs a certain per cent. of nitrogen, lime, etc., to grow to perfection, lime may play an important part in the secretion of nectar by enabling the plant to assimilate the constituents of sugar from soil and atmosphere more readily. Acting upon this supposition I have found that plants yielding nectar at all would do so in a much larger degree if planted or sown in a field which previously had been manured with lime or plaster, and in case the weather was favorable yielded a most bountiful supply of honey. Some may rejoin that buckwheat yields the most honey on a poor, stony or gravelly soil. That is quite natural, for such soil contains the minerals, viz: lime, feldspar, mica, etc., in abundance, and as buckwheat uses more of that than nitrogen such fields are in the best possible condition to support honey yielding plants. Most commonly occur lime-feldspar and mica, these undergoing a process of decomposition, the result of which is carbonate of lime, but as all soil contains sulphates this carbonate of lime is changed into sulphate of lime, which, being very soluble, is easily assimilated by plants. Now, if a bee-keeper intends to sow to furnish his bees forage he must be sure that his field contains a liberal supply of lime; if not present in natural sources he must furnish it artificially by plastering. White or any kind of clover serves as a very good illustration and proof. If clover is plastered it grows most luxuriantly; if not even then it will yield honey very often. Because clover is a deep-rooted plant, sending its roots down several feet to obtain what it cannot find at the surface.

Mr. H. has been cured of a severe attack of rheumatism by B. Schindlmair, Treasurer of the Vienna Bee-Keepers' Association, by the application of bee stings. On the first day he had him stung in the affected parts by 8 bees, on the second by 6, after which the man was soon relieved.

Last summer a swarm of bees settled in the ratlines of the man-of-war "Frederick Karl," stationed at Kiel harbor. Sailors tried to drive them away by pouring whisky on them; this of course enraged the bees to such a degree that they forced the sailors to leave. A bee-keeper was then sent for; he being absent, his wife, Mrs. Andresen, went on board the ship, hived the swarm and took it ashore. It has been doing well since.

The question drawer of the Bee-Keepers' Association of Thuringia and surrounding countries, at a late meeting contained the question: "What is the experience with the American honey rack?" Mr. Larupe said he could not recommend it. Mr. Herrmann, who has introduced the use of it in Germany, obtaining his rack of Mr. Newman, of Chicago, on his late visit to Germany, with some prize sections, said that his honey racks, on exposition, proved that bee-keepers in Germany are just as likely to obtain fine honey in prize sections as they do in America, and as much of it, if they only learn to be practical. —*Deutscher Bienenfreund.*

[There is evidently a screw loose somewhere; too much theory and not enough of practical application.—Translator.]



Local Convention Directory.

1881. *Time and Place of Meeting.*
Dec. 15—S. E. Michigan, at Ann Arbor, Mich. N. E. Prudden, Sec.
1882.
Jan. 10—Cortland Union, at Cortland, N. Y. C. M. Bean, Sec., McGrawville, N. Y.
11, 12—Nebraska State, at Ashland, Neb. Geo. M. Hawley, Sec., Lincoln, Neb.
17, 18—N. W. Ill. & S. W. Wis., at Freeport, Ill. Jonathan Stewart, Sec., Rock City, Ill.
25—Northeastern, at Utica, N. Y. Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich. A B. Weed, Sec., Detroit, Mich.
25—Texas State, at McKinney, Texas. Wm. R. Howard, Sec.
May — —Champlain Valley, at Bristol, Vt. T. Brookins, Sec.
25—Iowa Central, at Winterset, Iowa. Henry Wallace, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

Utah Convention.

Met at Salt Lake, Utah, Oct. 5, 1881. The minutes of the previous meeting read and approved. Reports for the last six months were called for from the various counties and responded as follows:

Salt Lake county reported 2,366 colonies of bees in good condition, with the exception of considerable foul brood throughout the country. The county court has appointed but one bee inspector, and the amount of work assigned that officer has proven to be too much for one to accomplish. 118,300 lbs. of honey reported.

Spanish Fork, Utah County, has 515 colonies in good condition. Some foul brood has been destroyed by burning hives and contents, and at present the vicinity is about free from the disastrous pest. The amount of honey produced this last season is 33,036 lbs., being an average of over 60 lbs. to the hive; and at 12½ cts. per lb. wholesale, would be a revenue to that settlement of $4,133.25. Charles Monk is President.

Payson, Utah County, reports 604 colonies of bees, and 31,215 lbs. of honey. Bees are in good condition, except some foul brood. Parley M. Driggs, President.

Pleasant Grove, Utah County, has 403 colonies of bees, and Lehi, Utah County, has 200.

Gunnison, San Pete County, has 20 colonies of bees and has taken 1,000 lbs. of honey.

Manti, San Pete County, was represented by Wm. Braithwaite, County inspector, who said they had 700 colonies of bees. When he inspected the county he found some foul brood, and destroyed about 30 hives by burning or burying them. His bees will yield from 75 to 90 lbs. of honey per hive.

Cedar City, Iron County, represented by Richard R. Braithwaite, has 210 colonies of bees. No foul brood there, but the hot and dry weather has been against their honey harvest this year.

Cache County was represented by George Millard, of Logan, County inspector. There are 153 colonies of bees averaging 50 lbs. of honey to the colony, or 7,650 lbs. total. The frosts of May and June operated against the bee interests, so that July 1, the workers killed off the drones; however, after that date the bees did very well.

Tooele County was represented by T. W. Lee, Secretary of the Tooele Association, who says the bees are doing well. They have 130 colonies of bees and no foul brood.

Jesse Murphy reported his bees doing well and having no foul brood. He had about 95 colonies of his own, and had taken care of some for his neighbors. He had taken 7,000 lbs. of honey and had yet got to take 800 lbs. more and had made 100 lbs. of beeswax. He had made a wax extractor of galvanized sheet iron lined with tin, and a glass frame over the top. The box was made flaring at the top and a wire screen placed below the center for the comb and cappings to rest upon. The hot rays of the sun caused the waste honey to run off through a tube in the bottom of the box and the wax settled on the bottom very clear. He would melt the dross remaining in a kettle skimming it well. French white glass in large panes was best for the top of the box. It cost him about $5.

Henry Tempect, of Herriman, said he had about 6 colonies of bees, and was well pleased with his experience.

David Sabin, of Payson, began 7 years ago with 6 colonies of bees, taking them on shares for 5 years. He had returned 36 to the owner and now had 40 of his own.

The total amount of bees reported in Utah is 5,174 colonies, averaging 50 lbs. of honey to the colony would make 268,700 lbs. Total amount of revenue at 12½ cts. per lb., wholesale, $32,337.50.

James Wrathall, of Grantsville, Tooele County, spoke of foul brood, and deprecated the use of hives or frames having been diseased.

Vice President Samuel McKay, said he could not consent to or encourage tampering with foul brood. We have a law on the subject, but it needs revising. Moved that a committee of six be appointed to revise the law. They were elected as follows: A. M. Musser, President; G. B. Bailey, Samuel McKay, Edward Stevenson, Wm. Egan, Jesse Murphy and Horace Drake.

Horace Drake, of Salt Lake City, had no foul brood in his apiary; his bees had done well this year.

Edward Stevenson had taken 5 colonies into a new locality where he increased them to 9, and had taken 515 lbs. of honey from them. His bees had done quite well this season; he had destroyed some hives of foul brood that came under his observation. He moved that every bee-keeper in Utah resolve himself as a bee-inspector until our country is cleared of the pest. Carried unanimously.

George B. Bailey had taken care of 230 colonies of bees that were in good condition; had destroyed some foul brood, and had taken about 8,770 lbs. of honey. Moved that the minutes of the meeting be published.

Edward Stevenson, *Sec.*

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☞ The annual meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held in Temperance Hall, Freeport, Stephenson Co., Ill., on Jan. 17 and 18, 1882.

Jonathan Stewart, *Sec.*

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

Office of American Bee Journal,
Monday, 10 a. m., Dec. 5, 1881.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. We quote light comb honey, in single comb boxes, 18@22c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@22c.

Al. H. Newman, 972 W. Madison St.

NEW YORK.

HONEY—The supply is full, and trade is lively. We quote as follows: White comb, in small boxes, 18@22c; dark, in small boxes, 15@17c. Extracted, white, 10@11c.; dark, 7@9c.

BEESWAX.—Prime quality, 21½@23c.

Thorn & Co., 11 and 13 Devoe avenue.

CINCINNATI.

HONEY—Is in good demand here now. I quote: Good comb honey, in sections, is worth 18@20c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. Muth.

BOSTON.

HONEY.—1-pound combs are a desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

Crocker & Blake, 57 Chatham Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 21@22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX—Best light 23@25c.—*Philadelphia Merchants' Guide.*

ST. LOUIS.

HONEY.—Steady, with sale for all offered at quotations: comb at 18@22c.; strained and extracted, 8@12½c.—top rates for choice put up in small packages suitable for retailing.

BEESWAX—Selling lightly at 19@20c.

R. C. Greer & Co., 117 N. Main Street.

SAN FRANCISCO.

HONEY—A sale of choice white extracted in barrels is reported at 9¾c. A shipment of 116 cases was made this week to Sydney. Consignments arrive with sufficient frequency and in sufficient quantity to prevent any great reduction in stocks. We quote white comb, 18@20c.; dark to good, 10@14c. Extracted, choice to extra white, 8¾@10c.; dark and candied, 7@8c. BEESWAX—23@25c.

Stearns & Smith, 423 Front Street.

CLEVELAND.

HONEY—Our market for choice white honey in 1 lb. unglassed sections continues very active at 22c.; 2 lb. unglassed at 20@21c.; buckwheat rather slow at 18c. Glassed sections would have to be sold 3@4c. per lb. less. Extracted selling slowly at 12c. per lb.

BEESWAX—18@20c.

A. C. Kendel, 115 Ontario Street.

SELECTIONS FROM OUR LETTER BOX

Multum In Parvo.—Please answer the following questions in the monthly edition of the BEE JOURNAL, and enlighten a beginner: 1. Will a colony of queenless bees, or one with a virgin queen, if given brood late, live through the winter, and will the drones of such queens possess fertilizing power? I am anxious to secure a number of Italian drones early in the spring, as I want to Italianize all of my bees. 2. If I keep her, will she produce drones sooner than any other queen under the same treatment? 3. If I place drone comb in the middle of the brood chamber as soon as the queen begins to deposit eggs in the spring, will she occupy those cells? 4. We have had two severe frosts, and only a few of my colonies have brood, do you think they will winter? The queens stopped laying after the first cold spell, and some even before, I suppose on account of the drouth. 5. Will a colony if queenless, and without larvæ, build queen cells? 6. Is there any such thing as fertilizing in confinement, and if so, please give us the *modus operandi?* 7. Is it well to winter bees in a warm place out-of-doors, or simply protect them from the wind?

E. M. GRESHAM.

Carlton's Store, Va., Oct. 20, 1881.

[1. If given brood late, they should winter through, but will dwindle so rapidly in spring that it is doubtful about rearing drones. Scientists generally agree that drones reared from a virgin queen possess procreative powers, and though inclined to doubt it at times, we are not prepared to deny it.

2. No; most likely not so soon.

3. Yes.

4. Yes; with intermitting cold weather, all queens will cease breeding in the fall.

5. No; they frequently start them, but soon abandon the work, before completion.

6. Fertilization in confinement has not been practically accomplished; exceptional cases have been so few, and attended with so much uncertainty, as to make it unsatisfactory.

7. Such a winter as the last requires something more than a mere protection from the wind. Several of these points have been very elaborately discussed in the weekly editions of the BEE JOURNAL, and we can only answer queries in the briefest manner possible, to save going over familiar ground in giving reasons why.—ED.]

Wintering, Cyprians, Etc.—I put my bees into winter quarters in the cellar before the cold weather set in. I put away, in good condition, 72 colonies in all. Of these, 50 colonies were in good condition as to quantity of bees and honey, while 22 were weak in bees and light in stores. I shall observe next spring if any difference is observable in the wintering qualities of Italians and Cyprians, as I placed in the same repository 56 colonies of the former and 16 of the latter. I will also have a good opportunity to observe as to whether the Cyprians are so very much more prone to sting than the Italians, for in setting out on summer stands, if a warm-like day in the spring, any bees, if at all disposed to sting, will manifest it then. That the Cyprians make much freer use of their business-end than the Italians, is almost a foregone conclusion with me, from my observation in handling them the past summer, but I will suspend judgment till spring.

J. W. MCKINNEY.

Camargo, Ill., Nov. 26, 1881.

Off Year for Honey.—Though this has been an "off year" with us as regards honey, our faith in the "blessed bees" as a source of permanent income, is unshaken. The Weekly BEE JOURNAL is as invaluable to the practical as well as the amateur apiarist.

GEO. A. TEMPLE.

Santa Barbara, Cal., Nov. 23, 1881.

Poor Season for Honey.—The unfavorable weather of last winter for bees, has been followed by a poor summer about here. The bees were able to gather but little honey after July 15, owing to the severe and protracted drouth; hence those who waited till after swarming time, before putting on the surplus honey boxes, failed to secure anything in them, and many colonies will starve out if not killed.

A. J. STILL.

Pattenburg, N. J., Nov. 25, 1881.

About Preparing Bees for Winter.—I have watched with much interest the different methods given for preparing bees for winter, but as yet I see nothing that is of any practical value to me or any of my neighbors. Now, if I had the various improvements that most writers speak of, or upper stories, or a cellar, or any amount of other paraphernalia, some of the articles in the BEE JOURNAL could be practically carried out. Most of the bees in this country are blacks, in the old-fashioned box or log hive. Some have introduced the Italian, and claim points of superiority for it over the black bee. The winter most generally puts in a claim for from 25 to 50 per cent., and has almost stripped the country of bees. A new era is dawning, and daylight appears. A little knowledge concerning their habits and wants, and man, heretofore their greatest enemy, will be their best friend. I have quite recently bought my bees, and have not had time to reduce the business to a system of profit or pleasure. Please suggest some simple and practical way that I may at this late hour adopt to protect them.

WM. T. STURGILL.

Pickering, Mo., Nov. 22, 1882.

[If, as we suppose, the bees are in box hives and gums, and you have no cellar, the simplest method of preparing them will be to place them in a close row running from northeast to southwest—entrances to the southeast; at each end plant a post with a forked end up, lay on a pole reaching from one fork to the other, and carefully stand up cornstalks to the front, ends and rear, slanting them to leave the entrances clear and binding at the tops to run off the rain. This is the simplest and cheapest method we can give, and perhaps at this late day, and for this winter, will prove as efficacious as any. If you desire to realize both pleasure and profit from your bees hereafter, would advise you to transfer them into movable-frame hives in the spring, at the beginning of fruit bloom.—ED.]

State Society for New Jersey.—Without saying anything about "the baby" other than that I hope to see its face weekly, in its new pinafore for 1882, I would like to know what are the privileges and prerogatives of State Vice Presidents? Allow me first to say that I am not after the loaves and fishes—bread and honey are good enough. I was just thinking that it is time some one got up to speak his piece about a bee-keepers' association for New Jersey. I think it is about time she was befederalized. What do you think about it?

G. W. THOMPSON,

Stelton, N. J.

[The "privileges and prerogatives" are not so lucrative as in many positions filled by not so good men; but, then, the consolation of a noble duty well performed is a sufficient recompense to any high-minded apiarist. It certainly would be quite desirable to have a good society organized in New Jersey.—ED.]

Sweet Clover on Bottom Lands.—In the BEE JOURNAL of Nov. 2d, A. J. Norris wishes to know whether sweet clover will do well on lands that are overflown once or twice a year? It does well here on the Maumee river bottoms, which are overflown every time of high water. I am transplanting it on my grounds. Bees are in their room in the cellar, enjoying their winter's rest.

L. EASTWOOD.

Waterville, O., Nov. 28, 1881.

[This removes the last doubt. Mr. W. J. Stewart says "sweet clover will grow *anywhere* except on a flat rock," and it will be necessary to keep that pretty clean of dust.—ED.

Bee Pasturage on Bottom Lands.—We have had a very poor honey harvest here during the fore part of the season; bees have done very well but the drouth cut off all of the fall harvest. I have 8 acres of bottom land. I wish to put in some kind of clover that will make the best forage for bees and the best pasture for cows. The land is rather wet; what kind would you recommend?

E. DOTY.

Macksburg, Iowa, Nov. 26, 1881.

[Sweet clover, by all means.—ED.]

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums. Their own subscription may count in the club:

For a Club of 2,—a copy of "Bees and Honey."
" " 3,—an Emerson Binder for 1882.
" " 4,—Cook's (Bee) Manual, paper.
" " 5,— " " cloth.
" " 6,—Weekly Bee Journal for 1 year.

Or they may deduct 10 per cent in cash for their labor in getting up the club.

☞ We are sometimes asked who our authorized agents are? Every subscriber is such an agent; we have no others, and greatly desire that each one would at least send in one new subscriber with his own renewal for 1882. The next few weeks are the time to do this. We hope every subscriber will do his or her best to double our list for 1882.

☞ *New* subscribers for the Weekly BEE JOURNAL, for 1882, will have all the remaining numbers for 1881 *free* from the time the money is received at this office. Therefore, the sooner they subscribe for it, the *more* they will obtain for the $2.

☞ Subscriptions may commence with the first number of any month in the year.

☞ The South Eastern Michigan Bee-Keepers' Association, will hold its annual meeting at the Court House in Ann Arbor, on Thursday (and perhaps Friday), commencing Dec. 15, 1881, at 10 a. m., for the election of officers for the ensuing year, and such other business as may be brought before the Association. A good attendance and interesting meeting is expected. Several subjects of interest will be discussed by able men.

N. A. PRUDDEN, *Pres.*
G. J. PEASE, *Sec. pro tem.*

☞ The Nebraska State Bee-Keepers' Association will hold its annual meeting in Ashland, Neb., on the 12th and 13th of January, 1882. A cordial invitation is extended to all who are interested in bee-culture.

T. L. VONDORN, *Pres.*, Omaha.
G. H. HAWLEY, *Sec.*, Lincoln.

Special Notices.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

☞ Articles for publication must be written on a separate piece of paper from items of business.

Photographs of prominent Apiarists—Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

☞ When changing a postoffice address, mention the *old* as well as the new address.

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

The Color and Lustre of Youth are restored to faded or gray hair by the use of Parker's Hair Balsam, a harmless dressing highly esteemed for its perfume and purity. 49w4

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

Rheumatism is the most terrible disease that has ever afflicted humanity, yet it instantly yields to the powerful drugs that Kendall's Spavin Cure is composed of.

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

It is Worth Remembering that nobody enjoys the nicest surroundings if in bad health. There are miserable people about to-day with one foot in the grave, when a bottle of Parker's Ginger Tonic would do them more good than all the doctors and medicines they have ever tried. See adv. 49w4

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

CLUBBING LIST FOR 1882.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1882, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage is prepaid by the publishers.

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The Weekly Bee Journal (T.G.Newman)	$2 00..	
and Gleanings in Bee-Culture (A.I.Root)	3 00..	2 75
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Bee-Keepers' Guide (A.G.Hill)......	2 50..	2 35
Kansas Bee-Keeper.......	2 30..	2 15
The 7 above-named papers.......	6 30..	5 50
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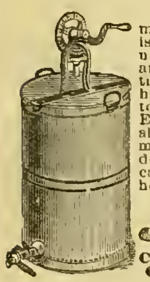
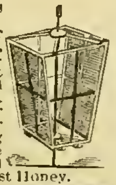


The Extractor is made of all metal is always ready for use, easily cleaned, and will last a lifetime. In fact, it has only to be used to be appreciated. Every Bee-keeper should send for my circular, giving details about the care of bees, and how to get the most Honey.



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The value of Ozone as a natural preserver has been known to our abler chemists for years, but, until now, no means of producing it in a practical, inexpensive and simple manner, have been discovered.

Microscopic observations prove that decay is due to septic matter or minute germs, that develop and feed upon animal and vegetable structures. Ozone, applied by the Prentiss method, seizes and destroys these germs at once, and thus preserves. At our offices in Cincinnati can be seen almost every article that can be thought of, preserved by this process, and every visitor is welcome to come in, taste, smell, take away with him, and test in every way the merits of Ozone as a preservative. We will also preserve, free of charge, any article that is brought or sent prepaid to us, and return it to the sender, for him to keep and test.

FRESH MEATS, such as beef, mutton, veal, pork, poultry, game, fish, &c., preserved by this method, can be shipped to Europe, subjected to atmospheric changes, and return to this country in a state of perfect preservation.

EGGS can be treated at a cost of less than one dollar a thousand dozen, and be kept in an ordinary room six months or more, thoroughly preserved, the yolk held in its normal condition, and the eggs as fresh and perfect as on the day they were treated and will sell as strictly " choice. The advantage in preserving eggs is readily seen; there are seasons when they can be bought for 8 or 10 cents a dozen, and by holding them, can be sold for an advance of from one hundred to three hundred per cent. One man, with this method, can preserve 5,000 dozen a day.

FRUITS may be permitted to ripen in their native climate, and can be transported to any part of the world. The juice expressed from fruits can be held for an indefinite period without fermentation—hence the great value of this process for producing a temperance beverage. Cider can be held perfectly sweet for any length of time.

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☞ **In fact, there is nothing that Ozone will not preserve.** Think of everything you can that is liable to sour, decay or spoil, and then remember that we guarantee that Ozone will preserve it in exactly the condition you want it for any length of time. If you will remember this, it will save asking questions as to whether Ozone will preserve this or that article—**it will preserve anything and everything you can think of.**

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A. C. Bowen, Marion, Ohio, has cleared $2,000 in two months; $2 for a test package was his first investment.

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F. K. Raymond, Morristown, Belmont County, Ohio, is clearing $2,000 a month in handling and selling Ozone; $2 for a test package was his first investment.

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If you do not care to send money in advance for the test package, we will send it C. O. D., but this will put you to the expense of charges for return of money. Our correspondence is very large; we have all we can do to attend to the shipping of orders and giving attention to our working agents. Therefore, we cannot give any attention to letters which do not order Ozone. If you think of any article that you are doubtful about Ozone preserving, remember we **guarantee that it will preserve it, no matter what it is.**

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It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat*, Pulaski, N. Y.

We have perused with great pleasure this *vade mecum* of the bee-keeper. It is replete with the best information on everything belonging to apiculture. To all taking an interest in this subject, we say, obtain this valuable work, read it carefully and practice as advised.—*Agriculturist*, Quebec.

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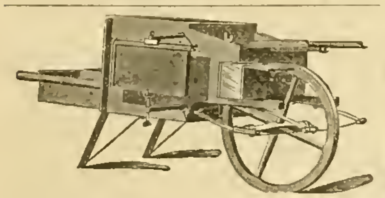

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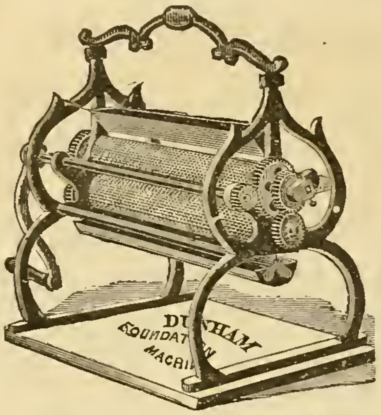

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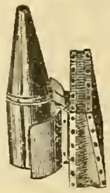

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VOL. XVII. CHICAGO, ILL., DECEMBER 14, 1881. No. 50.

THE AMERICAN BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,

EDITOR AND PROPRIETOR,

974 WEST MADISON ST., CHICAGO, ILL.

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The California Honey Crop.

Early in September we requested our readers to send on a postal card the results of the season, as to the honey crop, as will be remembered.

In the JOURNAL for Oct. 5 we stated that the table was nearly complete, and would appear in the next number of the BEE JOURNAL, but that we had received no reports from California.

On Oct. 12 we gave a "table of the honey barvest of 1881," so far as had been reported to us, and stated that it was necessarily incomplete as it only contained reports from one-twelfth of the bees in the United States. This was distinctly stated and should have been well understood, but by the *Semi-Tropic California* for November, just received, it seems that at least *one* does not comprehend it. Mr. C. N. Wilson, its correspondent, winds up an criticism as follows:

> Now this Table may be all the editor of the AMERICAN BEE JOURNAL claims it is in other States and Territories, as well as Canada, but when the editor puts the number of colonies of bees at 520 for the whole State of California for the fall of 1881, we begin to wonder where and how the extra labor and study, and the expenditure of brain work, comes to play any part as "valuable or interesting." Let us get at facts, and then compare them with the statements of the very much over-worked editor's Table. On the first Monday of March, 1881, the Assessor of Los Angeles County, California, reported 16,613 colonies of bees in the county, and valued them at $33,226, and their owners are paying taxes on that number of colonies. At the same time the Assessor found 575,000 pounds of honey on hand, and the owners of it are paying taxes on that quantity of honey, making a difference of 16,093 colonies of bees between the Table and the Los Angeles County Assessor's figures. The total honey product of California, according to the table, is 30,168 pounds, making a difference of 544,832 pounds as between our County Assessor and the editor's calculations. If one remembers that such men as Harbison, Wilkins, Flint, Hale and others who have long been in the business of bee-keeping, are residents of California, and any one of the persons named owning more colonies of bees and producing more honey than is credited to the whole State, and that some of them have shipped honey by the carload from California to Chicago, Ill., the very place where the editor does business and publishes the AMERICAN BEE JOURNAL, the question naturally occurs, if it would not be a very good thing for that editor to take Horace Greeley's advice and "go west," and save mental wear and tear—get a taste of some of our pure white sage honey—get acquainted with some of the honey producers of California, and interview the County Assessors as to the honey yield of California hereafter.

We never claimed that the figures represented more than one-twelfth of the honey crop—they were given as the result of reports sent to this office. If only a few of the honey producers of California reported, it was no fault of ours, and certainly it is with bad grace for Mr. Wilson to *abuse* us for not publishing a report which *he never sent in!*

The BEE JOURNAL was well aware that the reports from California did *not* represent more than one-twelfth of the product of that State, and only one-twelfth of the whole crop for the United States—and it, therefore. argued thus: "If the one-twelfth that are reported are a fair average of the whole, then the crop of American honey for 1881 amounts to 120,000,000 of pounds," etc.

In the face of these facts. is it not strange that Mr, Wilson should have misunderstood the Table, and have thought his unjust criticism necessary to defend the honey interests of his State.

While on this subject we may mention the fact that the printer omitted to "point off" the last two ciphers as cents of the amount given as the value of the honey mentioned in the BEE JOURNAL of Oct. 12. This amount should have been given as fifteen millions of dollars, as stated on the first page of the BEE JOURNAL for the following week (Oct. 19). We wrote the amount in words, and the printer put it in figures, and hence the error. This has been the subject of some criticism in the last *Bee-Keepers' Exchange*. An argument based on an error which was promptly corrected two months ago, is of no value, and is quite unnecessary to repeat.

Novice, Glucose and Grape-Sugar.

In *Gleanings* for November, Mr. Root quoted an editorial item from the BEE JOURNAL on the use of the glucose trash, and remarked:

> "Now if that is not exactly where I have always stood in the matter, it must be I do not see things straight. It looks to me as if friend Newman had come over to my position," etc.

In the BEE JOURNAL for Nov. 16, we reiterated our position on this subject, and then quoted Mr. Root's published views, which were diametrically opposed to our own, for he advised its use to mix with honey, "to improve it for table use," etc. We then added these words:

> Never have we counseled the sale or use of glucose for any purpose whatever, neither directly nor by implication; but, on the contrary, our protests against its use have been frequent and unqualified. We have sacrificed self-interest in our opposition to adulterations, and suffered much censure, but the most grievous injury we have yet received was from Mr. A. I. Root, who, with his grape sugar record before the public, unretracted, says "we are agreed."

To this Mr. Root replied in *Gleanings* for December as follows:

> The first page of the AMERCAN BEE JOURNAL for Nov. 17, contains much valuable information, collected and arranged with considerable care; but had friend Newman explained to his readers in the outset that grape sugar and glucose are two distinctly different articles of commerce, it would have made a much better showing for your humble servant.

That this is but a quibble to evade the force of the argument, is evident from the fact that Mr. Root uses these terms interchangably in *Gleanings* for March, April and October, 1878, pages 87, 110 and 326. He says:

> "The light *grape sugar* that we have been using I find almost as pleasant as maple sugar, and I have eaten it freely for months."
>
> "*Glucose* is excellent food, and we should like it just as well as honey, did it not lack the flavor of the flowers."
>
> "Basswood honey is improved for table use by being mixed with the first quality of *glucose*. I am sure it is just as wholesome as honey."
>
> "Our friend Dadant is doubtless sincere in what he says of *grape sugar*, but for all that I think him very much mistaken. I have eaten it in large quantities, just as I would maple sugar, and have fed it to our bees for over a year," etc.

In order to arrive at the truth, let us imagine Mr. Root on the witness stand, and quote his replies from *Gleanings* and his price lists:

Will Mr. Root please give us his opinion of glucose? Answer: "*Glucose* is excellent food."

How do you know that it is good food? Answer: "The light *grape sugar* that we have been using (called glucose before), I find almost as pleasant as maple sugar, and I have eaten it freely for months."

Do you think it wrong to adulterate honey with glucose? Answer: "I really think that strong basswood honey is improved for table use, by being mixed with the first quality of *glucose*."

Do you think that mixture wholesome? Answer: "I am *sure* it is just as wholesome as honey."

Is the *grape sugar* which you have eaten for months, the *glucose* which you pronounce "excellent food," and the *grape sugar* which you have fed to your bees, the same thing? Answer: "I have eaten it in large quantities, just as I would maple sugar, and have fed it to our bees for over a year without a single bad feature showing itself, so far as I know."

Is that "glucose" or "grape sugar" the same as the article of commerce? Answer: "It has been used largely all over our land, and is now quite an article of commerce."

Who makes the wholesome article you have been eating and feeding the bees with? Answer: "I am sure that that made by the Davenport Glucose Co. is wholesome."

What was the result of your feeding it to the bees for winter stores? Answer: "The first experiment I ever made with it for wintering, caused the death of two colonies.... They did not have the dysentery, but simply starved on heavy combs of solid grape sugar."

For what use have you advised grape sugar? Answer: "I have favored the use of grape sugar for feeding bees and nothing else."

As grape sugar has caused the death of your bees, as well as many others, what advice will you in future give in relation to it? Answer: "As this (grape or corn sugar) is, without question, unsafe for wintering, and as a great prejudice exists in the minds of many of our bee friends in regard to it, I have for the present ceased to offer it for sale."

So then, at last, we have drawn out the truth. Mr. Root *has changed* his position on this matter, and has advised against the use of grape sugar. How much better it would have been for Mr. Root to have acknowledged it, than to have tried to assume that he stands where he has "always stood in the matter." By saying, "It looks to me just as if friend Newman had come over to my position," he apparently intended to cover up the real truth.

Since the above was put in type we have met Mr. Root at the Michigan State Convention, at Battle Creek, which occurred last week. J. H. Kellogg, M. D., Managing Physician at the Sanitarium, lectured on the adulteration of honey before the Convention. Mr. Root was in the audience, and we took occasion to publicly ask Dr. Kellogg to explain the difference between the articles known to commerce as glucose and grape sugar. He replied that there was no difference, except that the liquid was called glucose and the solid was named grape sugar, to distinguish them commercially. Both were manufactured from the same material and alike, with the single exception of the addition of other chemicals to solidify that designated as grape sugar. And in this opinion Dr. Kellogg is sustained by all the chemical experts of this country and Europe almost without exception. After listening to Dr. Kellogg, and hearing his emphatic endorsement by the Convention, we expect Mr. Root will acknowledge his error in advocating the use of glucose for any purpose, and forever abandon its sale.

☞ We have received from Prof. Adolphson, in Zurich, Switzerland, the first number of a new semi-monthly bee periodical, entitled *Illustrirte Bienenzeitung.* If the publisher makes good his promises, and to judge by the appearance of this first number he will, we can predict success in the full sense of the word. It compares very favorably with older publications of the same character, but, much like the more progressive Americans, takes a more advanced and practical view of apiculture, on account of which it will be ahead of older papers in many respects. We think, therefore, it deserves the most liberal support from the German-reading apiarist; the subscription being only $1.00 per year, exclusive of postage, would be money well spent. We wish it success.

☞ Capt. W. J. Andrews, Ex-President of the North American Bee-Keepers' Society, has been elected Mayor of Columbia, Tenn. We congratulate him upon this mark of esteem by his townsmen.

☞ In the BEE JOURNAL of Nov. 23d, page 371, in the article, "The Knowledge Possessed by Bees," in several places the word "corner" occurs, which should read cover.

Michigan State Convention.—The Michigan State Bee-Keepers' Convention at Battle Creek, last week, was largely attended, and will compare very favorably with any bee convention held in America for the past ten years. Many of the most prominent apiarists of the State were present, and the discussions were marked by rare intelligence and enthusiasm. Mr. James Heddon, of Dowagiac, Mich., was chosen President for the ensuing year, and T. F. Bingham, of Otsego, Mich., was re-elected Secretary. We will publish a report of the proceedings next week.

Apiary Record Book.

It devotes 2 pages to each colony, embracing between twenty and thirty headings, neatly ruled and printed, with space at bottom for remarks, and so arranged that a single glance will give a complete history of the colony. Each book will also contain printed rules for the apiary, and twelve pages ruled and printed for an apiary cash account. As each book is intended for a several years' record, it is gotten up on first class paper, and strongly bound in full leather covers. There will be three sizes, sent postpaid, at the following prices:

For 50 colonies (120 pages)......	$1 00
" 100 colonies (220 pages)......	1 50
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Send in your orders at once, and the books will be forwarded as soon as completed.

Sad Bereavement.—Dr. Howard's many friends will read the following letter with sorrow, and join us in tendering him sympathy for his late bereavement:

I have just passed through a trying ordeal, and my plans for the future are somewhat unsettled. I have the misfortune to have lost my wife; she died on the 10th inst., of typhoid fever, after 21 days of suffering, I have 3 little children to care for. I hope to be enabled to do my duty toward them. I think I will be able soon to resume my business. I have now filled all orders for supplies up to date, but am behind with my work. My present intention is to continue here. I trust this may be an excuse sufficient to satisfy those who have had orders delayed, should any one compluin.

WM. R. HOWARD.

Kingston, Tex., Nov. 28, 1881.

A Rare Opportunity.—Until further notice, any subscriber who desires to obtain a good book on apiculture, can have either Cook's Manual, Quinby's New Bee-Keeping, or Novice's A B C, bound in cloth, postpaid, and the Weekly BEE JOURNAL for one year, for $3.00; or with King's Text-Book, in cloth, for $2.75. The JOURNAL and all four books for $5.50. This is a rare chance to get a good library on bee-keeping. A person can sell the books for their published price, $4.75, and get the Weekly BEE JOURNAL for the extra 75 cents and his trouble.

☞ We have received the illustrated Catalogue of E. Whitman, Sons & Co., 141 W. Pratt St., Baltimore, Md., which is a book of 160 pages, full of instructive reading to farmers and horticulturists. This is a work highly creditable to this popular firm, and every farmer should possess a copy. Enclose them 5 cents for postage and get a copy.

AMONG OUR EXCHANGES.

MISCELLANEOUS.

Next Season's Crop of Honey.—The *Semi-Tropic California*, makes the following remarks on this subject:

The bee outlook, although not as bright as it might be, owing to the light crop of honey produced this year, has fair promises for the future. Colonies generally are strong, and next spring will probably find them in good condition for a profitable summer's work. Experience is teaching our bee men how to assist their colonies during an off year, and fewer failures occur in this industry now than formerly.

Wintering Bees in Kentucky.—Mr. W. Williamson, Lexington, Ky., writes to the *Farmers' Home Journal* as follows:

We have just prepared our bees for winter, having been too busy to do so a month ago. We have discarded all double walls, and agree with Mr. Demaree in this respect, but can hardly go so far as he does when he says they will "in this climate generally winter without care, if they have plenty of stores to subsist upon." This may be safe so far as Mr. Demaree is concerned, who feels confident, because he understands fully the condition of every colony; he has examined minutely their strength, stores on hand, age, and whether the colony is queenless or has a young and vigorous queen. These are all conditions that must be considered in adopting Mr. Demaree's plan. We have prepared ours in the following simple and inexpensive manner:

Have put one thickness of cotton about one-half inch thick inside of regular Langstroth frame (which we use exclusively), then cover over tightly both sides of frame with common unbleached cotton; you have a neat, compact absorbent and comforter combined. We took out of each hive the two outside frames of comb and placed instead the two frames as above prepared, then put on top a quilt—any warm material will answer. We remove all frames out of second story, but leave second story on hive so that during warm spells in winter the quilt can be slightly raised for ventilation. We believe with a good supply of honey on hand and strong colonies, with this protection our bees are safe, but will give results next spring.

Locusses and Wile Honey.—The following is an amusing item, for which the Nashville, Tenn., *American* is responsible. It says:

The New York *Sun's* reference to the Baptist Social Union at Delmonico's, and the absence of the locusts and wild honey which formed the food of John the Baptist, recalls a little Sunday-school incident which we will avouch has never been in print, and is pure fact. He was a country 'Squire, an Elder, a most excellent man with all the pretentious ignorance of the Dogberry, or Fielding's 'Squire. The lesson was in John. The boys had formed various theories about the "locusses and wile honey;" but the asking of questions was not encouraged; it gave trouble sometimes. The teacher was in the habit of revealing all that ought to be known, which was all he knew, plus a large amount he did not know. "Now, boys," said he, raising his specs, "I expect you all want to know what kind of locusses and wild honey John the Baptist et in the wilderness. The kimintators make out it was the seventeen-year locusses and bee honey!"

Here the 'Squire lifted his specs higher and assumed a severe judicial expression, as if he were about to expound the law, or construe the statutes. "The kimintators was but man with like passions as ourselves. They were never inspired. The seventeen-year locusses, as you all well know who have sense enough to have seen 'em, isn't fitten to eat, and it's my o-pinion, as bein' against nachur, John never et 'em. The Jews was mighty particular, and they never et pork till the Lord showed Peter what was good. If the seventeen-year locusses had been in that sheet I told you about they'd a flew away, wouldn't they? It's against reason that John ever et such trash. He was goin' about his master's work and had no time for foolin' with bee trees, and what's more, bees ain't found in the wilderness away from settlements. Now, I'm going to tell you boys what he et in my o-pinion. It was honey locusses; you've all et'em, and I've et 'em, when I was a boy—the common honey locusses and nothing else." There was a general assent; all the boys had eaten "honey-locusses," or fruit of the three-thorned acacia, and the explanation saved the reputation of John the Baptist in the matter of taste.

Bees as Educators.—Rev. W. F. Clarke, in the *Bee-Keepers' Guide*, speaking of his recent visit to the celebrated bee-islands of Mr. D. A. Jones, says:

"It has increased my interest in bee-keeping, and my confidence in it as an industry bound to grow to large proportions. There is ample scope yet for science and practical skill to improve it. Success in it requires qualities of a high order, and it is a school of patience, perseverance, enterprise and energy. In its advancement it will not only increase national wealth, but national worth. A good bee-keeper cannot be a bad man or woman. Bees are a kind of moral police; they detect character. They are tutors also, and train to excellence. Bright examples of industry, they rebuke the slothful. Not only as honey gatherers, but as educators, they are entitled to take rank as benefactors of the human race."

Selling Honey.—Mrs. L. Harrison in the *Prairie Farmer*, remarks as follows on this subject:

There are many good producers who are poor salesmen, and they are as numerous among bee-keepers as any other class. Honey, to sell well, should not only be produced in good shape, but be graded, and the different kinds kept seperate.

If the bee-keeper has managed his apiary intelligently, he knows what he has to sell and what it is worth, and will not dispose of it until he can realize its full value. There is a time to "sell" as well as to produce. We knew of beautiful white honey being sold last July in this city, by a commission firm, for 10 cents per pound. It was brought to market in a tub, and bees and flies were troublesome, so it was forced off at this low figure. Had this honey been stored in prize boxes, and kept until now, it would bring 25 cents per pound at retail.

When honey is sold by the producer, the best way is to store it safely, and then sell by sample. If it is on wheels, buyers know that it can be had soon for a ghost of a price, if they are indifferent, as the owner is anxious to go home.

Extracted honey, Phœnix-like, is rising from its ashes. Glucose nearly killed it, but it is now being sought after, and is in demand where it is known to be pure. Let the public once gain confidence in it, as the bona fide product of the bee, and it will need no further recommendation. A pleased customer will be its best advertisement.

Peoria, Ill.

CORRESPONDENCE

For the American Bee Journal.

Three-Band Test of Italian Bees.

G. M. DOOLITTLE.

When the Italian bee was first brought to this country we were told that they were a distinct race of bees which had been excluded from all others from time immemorial, being confined to a certain district by the impassable Alps and the sea surrounding them. As these bees easily mixed with our black bees a test of purity was sought after, so that the buyer might satisfy himself whether he had bees as pure as those imported from Italy, or whether they were a mixture of the two races, black and Italian. As it was hard to get queens purely fertilized, a few of those eager to sell all queens as pure tried to fix *that* test at something short of the three yellow bands, which was conceded by the majority should be the proper test, for surely all bees imported from Italy would show the said three bands. It was from this standpoint that I once wrote an article on the purity of Italian bees, which will be found in volume 7, page 10, of the AMERICAN BEE JOURNAL.

At this time I considered all queens whose bees did not come up to the standard of purity there given as being mixed with black blood on the American continent. After a little I reared a queen whose progeny nearly all of them showed 4 yellow bands. At this my faith in the purity of Italian bees in their original home was somewhat shaken, for, if these banded bees were pure, what could we call these four-banded bees. They could not be called more than a pure, so we had to call them a "sport," as the vegetable growers do when a certain line of vegetables produce a different kind from the original.

About this time it became apparent to some that the bees in Italy were a mixed race, and we find the great German apiarist, Dzierzon, writing thus: "Throughout the whole race of Italian bees, there is a slight trace of German blood, which, in the course of time, has found its way into it, as no Chinese wall, not even the Alps, has been able to keep the two races hermetically sealed from each other." And now it appears that there is not only a "slight trace of German blood" in Italy (the long-continued home of the Italian bee), but that there are black and hybrid bees there also; and yet our friends Thomas and Demaree will talk about pure Italian bees. If there are black and hybrid bees in Italy, and also as Dzierzon asserts, a "slight trace of German blood throughout the whole race of Italian bees," pray, tell us where we are to look for purity.

This talking of purity of Italian bees in America, and of those of Italy (the land from which they were imported), as being mixed with black and hybrid blood, is very much like "sending coals to Newcastle." We must take A. I. Root's stand and say that all bees coming from Italy are pure Italians, or else say that the purity of the Italian bee consists in what is called "thoroughbred," and call them Americanized Italians, stopping this talk about there being a pure race of bees.

As some wish to know where I stand, I will say that I take the latter ground. Well, this being the case, what is meant by tested Italian queens? Now we come to the three-band question again, and will repeat what I said on page 285: "I claim every bee should show the three-bands while standing on the combs, to be such bees as I should want to breed from;" yet, "as far as my experience goes, I have yet to see the queen whose progeny show the three-bands under all circumstances," and see if I cannot define my position so it will be plain to others. The abdomen of every worker bee is composed of six scales, or segments, one sliding into the other telescope fashion. With the black bee these scales are black, all of them. With the Americanized Italian the first scale or segment beginning at the end of the abdomen next the thorax, is about ⅞ orange color, the other eighth being a black ring extending around the segment on the side opposite the thorax. The second segment is about 4-5 yellow and 1-5 black, the black stripe or ring being toward the point of the abdomen, as on the first segment. The third segment shows about ¾ yellow and ¼ black. All these markings should be clear and distinct (not muddy or cloudy and mixed as is the case with some of the imported stock) while standing on the combs; not on a window pane trying to fly and crawl up the glass. I say while standing on the combs, but wish to specify so as to meet my last statement, that "I have yet to see the queen whose progeny show the three yellow bands under all circumstances." These scales or segments I told you would slide into each other telescope fashion, and if a bee is stung by another bee, the abdomen will so draw up, or one segment slip into the other, so that scarcely any of the yellow can be seen, except on the first segment next the thorax, still the yellow bands are there, but don't show. The same is true to a more or less extent with the young bee when first hatched; that is, her abdomen is so drawn up that the three yellow bands do not all of them show. Again in the fall when clustered together for winter in their undisturbed repose, they show scarcely more than the two bands; yet the three yellow bands are there all the same. Even a four-banded bee will so draw up her abdomen when preparing for a winter nap, that no yellow will show except on the two first bands, and the second band would not show if there was room in the first segment for the second to go inside of it.

I did not mean to say on page 285 that the yellow bands were not there all the same, only that they did not show under all circumstances.

Friend Heddon seems to think in the *Kansas Bee-Keeper* that the three yellow bands will not mark the coming bee, but I think they will. The reason why I am not satisfied with such bees as A. I. Root calls pure Italians, is because such bees have not proved themselves as good as those showing three clear, distinct yellow bands, and if we wish to secure the best bee, we must begin with that which gives the best grounds for success, and the three-banded bee gives us that ground in my humble opinion. As to my not knowing what the finest specimen of the yellow race look like, I will say that in former years I have had queens from H. Alley, Adam Grimm, T. B. Hamlin, M. Quinby, Aaron Benedict, J. Nesbit, Mrs. Tupper, H. A. King, W. W. Cary and others. Later I have had queens of Jos. M. Brooks, W. W. Cary, J. P. H. Brown, J. P. Moore, L. C. Root, A. I. Root and many others too numerous to mention. It would be strange if some of these did not have as good bees as friends Thomas and Demaree have. I do not lay so much stress on bands as some do, for I prefer bees for honey rather than bands; still, as long as the bees showing the three yellow bands give us the best results, I believe that is the channel to work through till we find something that gives better promise.

One thing Mr. Demaree has touched upon which I have never seen in print before, where he says that when on the window, "the meanest hybrids would show the third band in splotches." I will say that I have yet to see the bee that shows yellow on any band that does not show it on all three; so all talk about one and two-banded bees needs an explanation. We read "bees with about one yellow band to show trace of Italian blood, are the wickedest bees to sting," while our experience proves that unless "telescoped," such a bee would show yellow on all three segments in about the proportion that a good thoroughbred bee would; that is, if but little was shown on the first scale, still less would be shown on the second, and still less on the third, but there would be yellow on three of the segments if there was on any of them.

These are my honest views on the Italian bee question as far as my experience goes up to the present time, and if I have trodden on any person's corns by giving them, they will excuse I hope.

Borodino, N. Y.

For the American Bee Journal.

Experiments with Comb Fonndation.

JAMES HEDDON.

During the past season my assistants and myself have made the use and manufacture of comb foundation not only a part of our business, but a continual series of experiment. Much has been written and said bearing testimony in different directions, and we felt that positive and extended experiment was all that was left for us to judge by.

We began manufacturing last spring with four machines, viz: A new Dunham 9-inch roller mill, a Vandervort 12-inch and Vandervort 6-inch roller mill, and a Given press, with one of Mr. Given's new improved die books. We first discarded the Dunham mill, because we could not make foundation upon it that had high side-walls without the use of the objectionable soap-suds, and then only with difficulty.

Next we laid aside the 6-inch Vandervort mill, because it not only run with great difficulty, but it made a line or side-wall in no way superior to the old style of foundation, though it did make a thinner base.

Next we tried the 12-inch Vandervort mill, which is designed by him expressly for the manufacture of heavy foundation for the brood department. This mill makes what we call the best foundation we have ever seen come from any roller mill, either for the brood chamber or surplus use. There are two samples of what we made in regular full-size sheets of that designed for both departments. The thin-base sample has a splendid line or side-wall. These samples, like all of the foundation we have made the past season, were passed through the rolls with the use of starch, and starch only. I wish to say that the manufacture of foundation with such side-walls costs more than double that of the old pattern, unless soap-suds be used. It is now generally understood that the use of soap is objectionable to the bees, just in proportion to the amount used.

Upon the 12-inch heavy Vandervort mill we can make sheets nine inches wide, all even and perfect, and as good as the sample shown, averaging seven square feet to the pound. Much care is needed and the process is slow and tedious, where no soap is used, when we try to pass through sheets that run ten to the pound; the sheets will double together, and make us so much other trouble, that we fail to make the manufacture practical. Still, I believe this same Vandervort 12-inch mill the best roller foundation machine on the market. I further believe that if we propose to make a foundation with perfect-formed and high side-walls, we must either use objectionable non-stickers or find the work impracticable. We should remember that samples of excellent foundation can be turned out in various ways that are not practical for the general manufacture. Every year I receive samples by mail, and wherever I have ordered a few pounds, I have never in a single instance received ever so small a lot equal to the samples. Nearly every piece of these samples betrays the use of soap. Some of our mill makers advise the use of starch with some soap. Pure beeswax is sticky stuff, and with so many high side-walls pressed so closely to an unequal number of points of metal, some very slippery substance is needed to allow them to loosen. Many have tried adulterating the wax with less sticky articles, but the bees say, "no."

Our last work making foundation was done upon the Given press. I bought this machine in the spring of 1880, for the sole purpose of filling frames full of worker foundation, and in a manner that would hold it in position under all circumstances. I have here samples of both the thick and thin Given foundation. The side lines are not so sharp as those of the Vandervort or Dunham; therefore, while they are not quite as high, they possess more wax, because the base or septum is thinner. In every instance the bees draw out all the wax in the lines. My assistant, Mr. Henry C. Farwell (now in Rutland, Vt.), and myself, have conducted a series of experiments during the season with different styles and thicknesses of foundation, and on an extensive plan. We have given it what is to our minds a thorough and comprehensive test, both in sections and super frames of 6x12 inches. We have put three styles in one of these frames, and have mixed things up in every way we could think of to get a satisfactory test—and right here I wish to say that we did it without the least prejudice or desire what truths might come to the front. We cared for the truth only. I had three mills to make foundation, to use and to sell. I had an agency and profit for the sale of all the mills above spoken of. I could not be prejudiced; certainly my employees were not. The results show up very much in favor of both the manufacture and use of the Given foundation.

Mr. Given claims that the new dies are so constructed that the bulky side-lines are left only slightly pressed, and being softer, are more readily and easily drawn by the bees. However that may be (which looks reasonable to me from the form of the dies), we found that the bees took earlier and more kindly to the Given foundation; that they drew it out further, thinner, and left a thinner base when completed. In handling over 1,000 one-pound sections of comb drawn out last year from Dunham, Root and Given foundation, Mr. Farwell remarked: "I can tell you every time which combs were made from Given foundation." "How?" I inquired. "By its delicate thinness, particularly of the base," he replied. I looked it over again, and saw that such a difference was really discernible.

I devised a plan whereby I succeeded in pressing sheets at the rate of 80 thin sheets (averaging 10 feet to the pound) in 25 minutes. But this speed is not the best of the discovery. I took them from the dry pile of sheets (my boy 10 years old peeled them apart for me) and passed through the whole 80 with one lubrication, and I rinsed only the first six sheets, all the remainder coming from the dies perfectly dry, and no racks for drying required. For some reason I failed to make the same process work with the type-metal rolls, probably because not adapted to that metal, as it seems to be to hardened copper. I at once put to test the adaptability of this process to the likes and dislikes of the bees, and found it a success there, too.

I have no pecuniary interest in any one's mills. I shall not hold an agency for any in the future. This year's experience teaches me that purchasers naturally prefer to trade direct with the manufacturers at the same price. I think I should feel the same.

I predict that sales in foundation will soon be confined to local trade, as the truth is, and will "come uppermost," that it will remunerate well every bee-keeper who expects to keep not less than 25 colonies, to own a press, unless he can purchase its products near home. Comb foundation, in the flat, is practically merchantable for long distances; but that pressed into made-up frames costs high for transportation, and should be made at home or purchased near thereto.

From all I can learn of others who have tested the plaster casts, they do not give satisfaction. Their frailty, and the mussy and dauby system that goes with them, I think, is destined to shelf them sooner or later. Their only redeeming quality is that they make foundation upon the flat plate plan, and do away with side-wall pressure, pulling and stretching, the same as is the case with the Given dies. I think that no person can make so great a mistake as to hive swarms on empty frames, or those partly filled, or any not full of comb foundation. If you have not bees enough to afford a press, and live too far from one of your size frame to afford the enormous cost of transportation, by all means wire your frames, and buy full size sheets and fill them by hand with this best gift to bee-keepers — pure beeswax comb foundation.

These sheets put on by hand work pretty well if carefully done, and though not so good as those put there by the press, and though a tedious job comparatively, it pays far better than not to do it, because perfectly straight all-worker combs, securely held by wires, are not only "a thing of beauty" and "a joy forever" to look upon, but they are things of profit as long as they exist. Let us pay the debt of gratitude we honestly owe, by giving "honor to whom honor is due" for the discovery, perfection and introduction of this splendid assistant to successful bee-culture—comb foundation.

Dowagiac, Mich., Dec. 7, 1881.

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For the American Bee Journal.

A Model Bee-House.

JAMES MCINTYRE.

Recently I had the pleasure of visiting Mr. Whitfield, of Dundas, and found he had a bee-house which came the nearest to perfection of any I have seen. With his permission I will endeavor to give the readers of the BEE JOURNAL a brief description of its principal points. Before proceeding, however, let us inquire what is perfection in a bee-house? I think all will agree that a house in which the air can be kept pure and dry, and at any desired temperature between 35° and 50°, independent of the outside temperature, without opening the doors or in any way disturbing the bees, is all that can be desired.

The house is built above ground; the wall contains 18 inches of dry sawdust and a 4-inch dead-air space; on the floor above is 18 inches of sawdust, the bottom ventilator is 4 feet under ground at the house, and 100 feet long. The air enters the house through this at a temperature of 45° winter and summer. While we were walking out to the bee-house Mr. Whitfield remarked that after putting his bees in the weather became warm, the temperature of the house rose to 70°, and the bees came out on the fronts of their hives; this set him to thinking how he should keep them cool, and he finally decided that the best thing he could do was to put in a stove. I hardly knew what to think of such a statement as that, but soon found it to be a fact.

When we arrived at the house he led the way up a flight of stairs on the outside of the building, and entered above. Here we found a small coal stove inclosed in a tin box, with a pipe running from the top of the box out through the roof, and another from the bottom down into the house below. The hot air in the box passing upward, caused the air to rush in through the bottom ventilator at a temperature of 45°, which soon brought the temperature of the house down to 48°; this made the bees enter their hives and remain perfectly quiet. The hot air seems also to attract the moisture from below, leaving the air dry and fresh. The thermometer is dropped through a hole in the floor near the stove, and is attached by a cord to the cover of the hole. By putting the ear to this hole he can hear a bee fly below. In warm winters it is often very difficult to keep the temperature in the houses low enough to prevent the bees becoming uneasy, with ordinary ventilators, for as soon as the outside temperature rises above the temperature of the house, the air ceases to circulate, and soon becomes very impure and warm. Mr. Jones has an arrangement for holding ice near the top of the room to keep down the temperature, but will this cause the air to circulate—will it not make the air damp, and disturb the bees more or less opening the doors and putting in the ice?

As Mr. Whitfield's arrangement will only lower the temperature to 48° in warm weather, I would suggest another improvement by which it can be lowered to 38° if desired, and still keep the air pure and dry, without entering the house: Make a box 18 inches wide, 6 feet long, 18 inches deep, with a cover to fit; cut a circular hole 7 inches in diameter in each end, and run a 7-inch stove-pipe through it; connect this with a pipe running through the wall and up the inside within a foot of the top; fill the box with snow or ice with a little salt in it, close the bottom ventilator, and allow the air to be drawn in through this pipe. Perhaps some will say this is too much trouble and expense. The stove only consumes 10 lbs. of coal per day, and as for the trouble, what is gained without care?

Strathroy, Ont., Nov. 21, 1881.

* * *

For the American Bee Journal.

New Methods of Wintering Bees.

WM. F. CLARKE.

The problem of wintering bees still awaits full solution. There is no method of which we can say that it will be uniformly and infallibly successful. As all signs fail in drouth, so all known methods of wintering bees fail during such a winter as the past. So we must keep on investigating, theorizing and experimenting.

THE ANTI-POLLEN THEORY.

Mr. Heddon has conceded that at present, this is only a "guess." But he says in the course of his rejoinder to me, "I thought I had made it clear that I believed the eating of bee-bread by the older bees during continued confinement, was the cause of dysentery." So I thought. Hence my letter, the main object of which was to tone down what I considered unwarrantable confidence in a new, and as yet, untested theory. Mr. Heddon now puts it on the same footing as the "bacteria hypothesis." I am content. There let it rest until further light either relegates it to the "bacteria" oblivion, or exalts it into a discovery, in which latter case I shall not begrudge Mr. Heddon his well-won honors. I do not need to answer Mr. Heddon's last article in full. It is made up of a re-statement of his former arguments which I thought, and still think, inconclusive; of explanations, which are always in order, and of smart hits at myself, which, being good-natured, I take in good part, especially the closing one in regard to my prospects as a discoverer. Before I get through this article, it will be seen that I am on a voyage of discovery, and if I gain the promised land before he does, I am sure he will be as ready to crown me, as I have expressed myself to do him that honor, should he prove the lucky man. Meantime, the anti-pollen "hypothesis" is on its trial.

HEAT IN THE GARRET.

An experienced Canadian bee-keeper, Wm. J. Whitfield, of Dundas, Ont., is crying "Eureka" over a method of wintering, which I do not know how to characterize better than by the above title. After trying a variety of plans for the past 20 years, he has hit upon one which he thinks is as near perfection as we are likely to get in this world. Let me try to describe it: A sight is chosen for a bee-house on a slope sufficient to bring a 6-inch pipe 120 feet long starting at the surface, 4 feet below ground when it reaches the center of the bee-house. A well 2x2 ft. 6 in., built of stone to the surface, forms the final outlet. A plank floor is laid a little open in the cracks to admit the air from below. The walls of the bee-house are constructed as follows: First a wall of 3x4 scantling tightly boarded on both sides, making a 4-inch dead-air space; 18 inches distant another similar wall, the 18-inch space being filled with dry sawdust. The bee-house is 16x20 outside, and 12x16 inside. On getting thus far, Mr. W. found that he could not control the temperature. It was either too high or too low. Then he put a pipe 8x8 inches through the ceiling, but still the house was either too cold or too hot, and more or less damp. Next he put in another pipe a little larger, bringing it in from the south end with an upright shaft 8 feet high. It was run along on the top of the joists to the back end, then down to within 6 inches of the floor, and covered with sawdust. This made things a little better, but improvement was needed yet. Both these pipes had a slide-board in them which could be opened or shut from the top. There was also a small pipe through which a thermometer could be let down and drawn up from above so as to find out the temperature without disturbing the bees. A controllable draft of air was wanted, and to secure this, a small coal stove was put in the garret over the bees. A box was made and lined with zinc to hold the stove. Near the back end, a pipe was put in leading from the ceiling into the stove box. Six inches of sawdust were put under the box to keep the heat from striking through to the bees. The stove was cased with tin from the top of the box to within a few inches of the rafters, leaving space enough at the back to receive a 7-inch stove pipe. The smoke-pipe from the stove is 5-inch. The heated air ascends from the zinc box and tin casing through the vacant space in the 7-inch stove pipe. A strong draft is thus created. By graduating the fire, the temperature of the bee-house can be controlled at will. A moderate fire will keep it at 50°—a strong one will bring it down to 40°. The temperature is kept at 50° for the first two weeks after putting in the bees, and then generally reduced. If the bee-house is too warm, by putting on the draft the heat will go down one degree per hour. The bees are perfectly quiet, the house is dry, and there is no foul smell of any kind. Before putting in the bees, 3 bushels of unslacked lime are put beneath the floor.

In reply to the objection that this plan gives trouble, Mr. W. says, "I don't find that we get much in this world without some trouble. All I have to do is to shake down the ashes night and morning and add coal. This is no more trouble than feeding one pig." The air that comes in from the long out-door pipe is at all times, summer and winter, at 45°. This garret-heat plan is also on trial.

PARLOR WINTERING.

Now for my own little experiment: I have 2 very weak colonies in my library. Each consists of a mere handful of bees. One has an Italian queen that mated with a black drone; the other has an Italian queen purely mated. Both are in common out-door hives, but each has a wire-cloth cage over it. A slide controls the ordinary entrance. Honey-boards are screwed down, each having a 3-inch hole in the center, covered with wire-cloth. The theory is that bees can take exercise enough within a limited space, just as a man can take exercise enough on a verandah. Moreover, if out-door colonies can be stimulated so as to increase, why not in-door colonies? These bees have been domiciled in my library nearly a month. I feed them through the wire-cloth opening in the honey-board. When I give them a fly in the cage, they are too intent on getting out to gather feed, but they take to it kindly through the honey-board. I have only to cover the honey-board opening with cloth two or three times folded, to secure perfect silence. Only a few of the bees care to come out when the sliding-doors are opened. These, I believe, are aged bees for the most part, whom instinct seems to teach that they must go out of the hive to die. One of these little colonies is the out-come of a black nucleus into which I introduced an Italian queen Aug. 15. The bees that come out and die are all black. Not a solitary Italian has yet been found among them. I do not propose to open these hives until spring. If my theory proves sound, they will breed, increase and come out good colonies by that time. If it proves unsound, why, the bees will die—a result sure to have happened out-of-doors.

Now I don't go 10 to 1 on my theory, like Mr. Heddon, but I have confidence enough in it to give it a trial. If it succeeds, there need be no more doubling up of weak colonies or sacrifice of supernumerary queens in the fall. A moderately-sized room with a coal-stove kept going in it, will hold a lot of these little colonies. If, say, 50 can be nursed up from a handful, each to be a good, strong colony, it will pay handsomely, and we may devote the summer to honey-gathering, and the winter to building up nuclei into working colonies. "Too good to be true?" Well, perhaps.

Artificial heat has been tried before now in various ways, but never, I think, in this particular way. Bees have been put in warm rooms, and given liberty now and then. They have made for the glass windows, and been chilled to death. When more than one hive has been liberated in the same room, they have, like Kilkenny cats, quarrelled and fought until destruction came to both or all. I put this forth only as a modest experiment, and a humble effort to throw more light on the problem of wintering, but possibly I may wake up some fine morning to find myself famous, and my friend Heddon lustily blowing a trumpet before me!

Listowel, Ont., Dec. 3, 1881.

CONVENTION
NOTES

Northeastern Wisconsin Convention.

The Northeastern Wisconsin Bee-Keepers' Association convened at Pewaukee, Oct. 11, at 10 a. m., and in the absence of the President and Secretary, and owing to the small number present, was not formally organized till 3 p. m., when, in the continued absence of the President and Secretary, John Hodgson, Jr., was elected President *pro tem.*, and T. E. Turner, Secretary *pro tem.*

Question.—"Do Italians, Cyprians or black bees winter best?"

John Hodgson, Jr., said his Italians gathered impure honey last fall, and all died from the effects of it in wintering; his blacks gathered better honey, but did not have enough to run them through the long winter, and a great many starved; his few Cyprians wintered better than Italians.

H. P. Sayles had some black bees, some Italians, 4 Cyprian colonies and some hybrids. His small colonies seemed to winter best. The Cyprians wintered the best of all. The blacks all died but one colony, and it became queenless late in the spring.

T. E. Turner had wintered Italians and Cyprians the past winter with but little difference in the results, all things considered, and what little difference there was, was in favor of the Cyprians. The percentage of loss of the two races was about the same, but the Italians were in much the best condition for winter, and should have done the best.

Mr. Wilson had Italians and hybrids; his pure Italians wintered best.

Mr. Olsen had Italians and some hybrids, and could see no difference in their wintering.

Charles Horst had Italians and blacks in the proportion of 11 to 7, and they wintered in proportion of 7 to 2.

S. E. Gernon had little experience with wintering any but black bees, but regarded all wintering difficult.

Question.—"Which race of bees is the most profitable?"

T. E. Turner had decided long ago in favor of the Italians over the black bees, and lately had tried Italians and Cyprians in comparison, and found no difference in the amount of honey gathered. He preferred the Italians for their gentleness in handling, but found the Cyprians a little more prolific and more ready to work in boxes.

H. P. Sayles found the Italians would fill the brood chamber with honey to their injury and self-destruction if they were let alone; and for them to give the best results the extractor must be used, or full combs be removed and empty ones or full sheets of foundation put in their place. He thought the blacks were the best bees for the careless bee-keeper, because they would not fill up their brood chamber with honey to their own injury. He thought the honey extracted from the Italians would more than pay for the time of extracting it, and then the Italians would gather the most honey besides. He prefers either the Italians or Cyprians, but has had limited experience with the Cyprians, yet regards them favorably so far. The Italians required more care and attention than the blacks, and he believed, taking the season through, that he could get more box honey from the blacks than the Italians, and a better quality of extracted honey.

It was resolved that the sense of this Association is that the Italian and Cyprian bees are more profitable, all things considered, than the blacks.

Question.—"What is the cause of the great loss last winter in Wisconsin and elsewhere?"

Mr. Peffer found no young bees in the fall; the long winter and impure honey, to be the causes of the great loss last winter of all his bees.

Mr. Wilson thought we could never arrive at the cause of the great loss last winter. His bees starved to death last winter.

Oct. 12, 10 a. m. The Association was called to order by the President *pro tem.*, and resumed the discussion of the last question.

Charles Horst thought his principal cause of loss was starvation.

H. P. Sayles thought the very early breeding in the winter was the cause of bees eating so much honey, and their starvation the result.

T. E. Turner thought his bees died the past winter from impure honey principally.

Mr. Hodgson found his bees breeding in February, and with very little honey. He fed some on sugar candy in the cellar, and those fed all went through in good condition, and those not fed were dead, or in bad condition.

S. E. Gernon lost his bees from starvation, but could not tell the cause of their starvation, when he had given them plenty of honey in the fall.

H. P. Sayles said it was caused by a combination of circumstances, poor honey, lack of young bees in the fall, breeding in the winter. He had bees with dysentery from long confinement, but they got over that and he thought it was not real dysentery they had. He thought breeding in winter more than the poor honey caused the great loss.

T. E. Turner found breeding early in winter very bad for bees, but considered the poor quality of honey the cause of the great loss with him.

Question.—"Swarming out; what is its cause, and how to prevent it?"

John Hodgson, Jr., had found no way to prevent swarming out in the spring, and thought the condition of the bees in the fall had something to do in causing it. Others had but little experience with swarming out.

Question.—"What is the best way of getting Italians to work in boxes?"

T. E. Turner put one full section in the center of section rack on top, and the Italians would go to work in them; also used section frames in the brood chamber at the side of brood, and also used section frames in an upper story.

H. P. Sayles said he kept the hives full of brood in the brood chamber by extracting, and put a small piece of brood or eggs in the section rack on top, and they went right to work.

Peter Peffer had Italians to work in boxes this year as well as blacks, but still had no faith in Italians for work in boxes.

Question.—"What has the yield and increase of the present year been?"

John Hodgson, Jr., had 19 full colonies and 5 nuclei in the spring, and had taken 2,900 lbs. of honey, 750 lbs. of which was extracted. He had now 75 colonies to winter.

T. E. Turner started with 15 colonies in ordinary condition and 5 nuclei; had 600 lbs. of comb honey, and 600 lbs. of extracted; reared 50 queens for market, and now had 73 colonies in good condition for winter.

H. P. Sayles had 5 nuclei in the spring, and had obtained 100 lbs. of comb—150 lbs. of extracted honey and reared 100 queens.

Mr. Olsen, from 10 colonies had taken 1,400 lbs. extracted and 200 lbs. comb honey, and now had 30 colonies in good condition for winter.

Peter Peffer, from 3 colonies took 300 lbs. box honey, and increased to 6.

William Mayhew started in the spring with 2 colonies; took 50 lbs. of comb and 100 lbs. extracted honey, and increased to 5.

S. E. Gernon started with 30 colonies and 6 nuclei; took 3,400 lbs. of box honey, 800 lbs. of extracted, and increased to 68.

Mr. Wilson, from 2 nuclei, took 500 lbs. of extracted honey, and increased to 5.

The following was adopted:

Resolved, That we exceedingly regret the non-attendance of the Northern members of the Association, and in view of that, and the fact that the Southern members follow it wherever held, that the next Convention be held in the Northern part of the State.

The next meeting will be held at Berlin, Wis., on Jan. 17 and 18, 1882.

T. E. TURNER, *Sec. pro tem.*

Western Michigan Convention.

The Western Michigan Bee-Keepers' Association, held its first annual meeting at Berlin, Mich., on Oct. 27, President Wm. H. Walker in the chair.

New members were received, increasing the number to 34, including 8 ladies. The constitution was amended, to have a Vice President elected for each county represented in the Association.

The following officers were elected for the ensuing year: President, Wm. H. Walker; Secretary, Wm. M. S. Dodge, Coopersville; Treasurer, Mrs. Jennie Walcott, Berlin; Vice Presidents—for Kent Co., Henry Holt, Cascade; Ottawa Co., J. J. Robinson, Lamont; Muskegon Co., Geo. C. Young, Ravenna.

The following address by Dr. E. P. Cumings, of Grand Haven, was read:

Wintering Bees.

When we look back and see what a wholesale slaughter of the bees there was all over the country during last winter, I think there is no question of so much importance, or that comes home so forcibly as this. What I have written are my honest conclusions, arrived at from experience and study. I have kept bees for the last 12 years. Took it up for an out-door pastime, and have made it quite a study. Have had from 3 to 30 colonies. Being able only to attend to few, I have disposed of some each year, but during all this time I have never lost a colony in winter, and my experience convinces me that it is unnecessary and cruel.

This may seem like a sweeping statement, and to many who are sore over losses, uncharitable; but nevertheless, I believe it is true. What would you think of a man who had no barn for his horses or cattle, and left them out-of-doors to shift for themselves in our northern winters? You might as well expect them to winter unprotected, as for bees, and bees can be as safely and surely wintered as a horse in a good stable with plenty to eat, a good blanket, and suitable bedding. Many persons engage in business without sufficient information regarding it; in other words, without "learning the trade," and such must fail; they always have bad luck.

I have known persons engage in fruit-culture or gardening, and get good trees or seeds, but let the sun shine on the roots and not plant their seeds properly, and after planting they think all they have to do is to reap the harvest. Their garden and orchard grows up to weeds—their trees are killed by borers, and they have had "bad luck." Such will not do in our days. The price of success in every thing is "eternal vigilance." There are enemies to fight, and the elements to combat, in all branches of industry, and he who is best posted and most diligent, will succeed the best. "The slothful shall not eat the good of the land."

There are occasionally winters when bees will winter safely out-of-doors without protection, but even those winters they are much better off for protection, and winters are so uncertain, that it is not safe to risk them at all. They will commence raising brood earlier in the spring, come out stronger, and consume less honey when protected, than otherwise.

Many are ignorant of the cause of bees dying in winter when they have plenty of honey in the hive, and they think the honey was bad, or that they froze up entirely. They would think it impossible for bees to starve with plenty of honey in the hive. Nevertheless, in most cases this is the fact. In very cold weather the bees cluster together in the smallest possible space where the combs are empty, as they can pack in closer there; and if it continues cold for some days, the combs outside the cluster become covered with frost and ice from the breath of the bees. They can not live long without honey to eat, and some brave fellows start out for it. They step upon the frosty combs, and in a minute they are chilled and unable to return, and soon fall to the bottom of the hive, dead. Others follow and share the same fate, till at last the workers have all perished in their attempts to bring honey to the queen, who finally shares the common fate. Do they not starve? and if so, who is to blame? Is it not those who should care for and protect them? I say they are just as much as though they had starved their horse or other animals.

But, I fancy I hear some one say we are ignorant, and the sin of ignorance is winked at. Well, if people can get any comfort out of that, they have not an enlightened conscience; but it is pretty dear winking, and they will have to do much of it to restore their wasted funds, or bring their dead bees to life again.

Many ways of wintering bees are recommended by different writers and bee-keepers. Packing them with chaff or other material, on their summer stands; in a house made for the purpose, above ground, the sides, floor and ceiling of which are packed; also in a good cellar. I believe a good, dry, dark, cool, well-ventilated cellar, free from rats and mice, the best possible place to winter them. It should be kept as near the freezing point as possible, and not freeze. It is not necessary to have a cellar exclusively for them, unless you have a large quantity. I have always kept mine in the cellar where we have kept all our vegetables, and where we go many times a day for them. I have a strong shelf about 4 or 5 feet from the bottom of the cellar, on which I put the hives close together, with a curtain of old carpet hung in front, a little lower than the shelf, so that when we go in the cellar the light will not affect them. At other times, the cellar should be kept perfectly dark. We have a thick, dark curtain at the window, which we drop when we go down, and hang up when we come up again. The window can also be opened if it gets too warm, in case of a thaw, when the bees may get uneasy. We then open the window at night and close it in the morning, when the bees will be found quiet.

One of the great advantages of a cellar over other methods, I believe to be, that it is not readily affected by slight thaws, or changes of temperature. The shelf upon which they are put should not, if possible, rest on the floor, or hang to the joists above, if the room over is occupied and the cellar is one you often go into, for the noise and jarring would disturb them, but fasten it to the wall. Care should be taken not to jar the shelf when going in the cellar.

They should not be put into winter quarters till winter has set in for good. Let them have a day or two of it, and if you see it has really set in, put them in. Carry them in your hands as carefully as possible, leaving the top of the hive on the summer stand, or not as you like (I have mine out), then before putting them on the shelf, give them a little top ventilation by opening a space across the frames, and a quilt about the size of the top of the hive over all. That gives enough ventilation without letting off too much warmth, while the little stick across the frames keeps the quilt up, so that the bees can crawl from one frame to another. Always leave the fly holes open at the bottom, for they will become uneasy if they find they are confined.

They should be carried in when cold and put in place as quietly and quickly as possible and the cellar made dark, and they will soon become quiet and remain so all winter, unless it is unusually warm; then if you cannot quiet them, take them out on a warm day and put them on their summer stand, and give them a fly. Then if it turns cold again, carry them back in the cellar as before.

Mine were in 4 months last winter without a fly, and after I carried them out about the middle of March, I put them back and kept them a few weeks longer. They may become too warm and uneasy unless you take them out and give them a fly, and will discharge their feces over the hive and on the combs, which makes bad work, and people will say they have the dysentery when it is only natural. While they are kept quiet they do not discharge their feces, but on the first fly they all empty themselves, and are then all right. If you don't want them to "have the dysentery," keep them cool and quiet.

I have spoken only of frame hives: some will say, what shall we do with our box hives, gums, etc.? Treat them the same way, as far as you can, but any one who expects to succeed with bees must have a movable frame hive, in order to always know what condition they are in. I do not mean you must buy any patent-right. I am not much of a favorite of patents, and there are plenty of good hives without buying worthless patents. Some still cling to the old box hives, because their fathers used them.

There was an old gentleman who lived near me who thought he knew it all, and gave me a good deal of advice, and of course I could not inform him any, for he had always kept bees, and his father and grandfather before him had kept them, and he understood all about it. He did not like the new-fangled notions; preferred the old-fashioned gums or box hives, but thought a hollow log the most natural and best, and actually put some in one. I could not convince him that the queen was not the "king bee," or that the queen came out with the first swarm always; but he did finally put his bees in the cellar, after he saw that mine wintered so much better than his, but he thought it necessary to go and stir them up once in a while during the winter, and consequently his bees "had the dysentery;" but the poor old man has now gone to his final rest, as have also his bees.

If you wish bees to winter well or do well, and be profitable at all times, keep them strong. In this climate, where the honey season is so short, they should be allowed to swarm but once. You will then have strong colonies that can at all times defend themselves against robbers or millers, and will go into winter quarters strong, and give you good returns in surplus honey.

There is no disease that is one hundreth part as destructive to our little pets, as is our negligence in not providing winter protection for them, and if we need any legislation in regard to them, it seems here is where it should begin. Make it a criminal offense for any one to keep bees unless he is competent, and not shiftless enough to neglect them.

The Secretary read from a letter from T. F. Bingham, of which the following is an extract: "I am raising the combs 1½ inches from the bottom to allow the accumulations of dead bees, should long cold occur as last winter."

J. J. Robinson thought this a very good plan. He would make a frame 2 inches high to fit under the hive on bottom board. He did not think bees froze to death. A colony in his neighborhood wintered well unprotected in an old box hive with a wide crack in the side, while other bees were almost a total loss. Several instances of this kind were given.

A. A. Dodge. Two men living about 12 miles apart, have kept 30 or less colonies each in the box hives, wintering on summer stands. One who has been very successful in wintering, makes a fly-hole in his hives about 6 inches above the lower entrance. The other man does not; had lost nearly all his bees this last winter. He had known a man who for years successfully wintered bees by putting a piece of brick under each corner of his hives.

Wm. H. Walker had found a bee frozen in ice and throwed it out, and in half an hour it flew away.

Henry Holt said he had come to learn how to winter bees. When he lived in New England, bees wintered without care, but times had changed. He thought ventilation important. He had tried wintering in a cellar, but thought it a good deal of trouble to carry them in and out.

Walter Hastings thought successful wintering depended on a few simple conditions: Keep them dry; give them ventilation enough, but not too much. He thought it was not easy to freeze bees, as they would maintain the warmth of the cluster in the coldest days. He described his method of packing with chaff; by removing a piece in the front of the hive, he could clean dead bees from the bottom board, should they accumulate.

A. A. Dodge spoke of cutting passage ways through the combs.

E. Miner said that last winter he used a room above the cellar, in which his bees were kept; many bees died; stopping the entrance caused uneasiness. He wished to know if noise disturbed bees. It was thought bees were disturbed more by jarring than by noise.

Walter Hastings thought confinement in a cellar unnatural; if cold will not kill bees, why put them in cellar?

Wm. H. Walker said that wild bees did not die from cold, yet cold was the real cause of loss, as with frosty combs, they would starve when honey was close by. He thought the great object of wintering in cellar was to save honey, by an even temperature.

The members were about equally divided in favor between chaff packing and a good cellar.

F. S. Covey said that last year he had 2 colonies which had been queenless for a time, allowing bee-bread to accumulate in the combs; in early winter they were severely attacked with dysentery. They were good colonies, had good queens, plenty of honey and young bees, the honey being mixed with bee-bread.

J. Precious gave similar experience.

Question: Which is best, artificial or natural swarming?

A. A. Dodge said both, according to circumstances.

Wm. H. Walker thought it depended on the man.

J. J. Robinson said it was claimed by some fruit growers that bees injured fruit, and that in such cases the bee-keeper must dispose of his bees, or keep them in until the fruit was out of the way. He was threatened with prosecution by one of his neighbors (a grape grower), and would have to give up keeping bees, or stand a law suit.

Question: Shall we advise our friends to go into bee-keeping, or is the business over-crowded? The general opinion was that the market had improved as fast as the supply had increased.

The meeting adjourned, to meet in the city of Grand Rapids, on the last Wednesday and Thursday of April, 1882. WM. H. WALKER, *Pres.*
WM. M. S. DODGE, *Sec.*

SELECTIONS FROM OUR LETTER BOX

White Pine Honey Package.—If we take white pine and make a box or barrel to hold honey, and then scald out this box or barrel before we put the honey in, will the honey taste of the pine? I had 13 colonies last fall, lost 3 by backward spring, and now have 17. Most of them came through weak last spring. It was so dry here this summer that I did not get much honey—about 150 lbs. of extracted and 70 of comb. I like the BEE JOURNAL very much and always look for its appearance. C. F. STURTEVANT.
Port Jefferson, N. Y., Nov. 28, 1881.

[If well scalded the honey will not taste of the pine.—ED.]

Shipping Bees.—1. How many colonies of bees can be shipped in one car? 2. Can bees be shipped as safely in the fall as in the spring? 3. What is the cost of freight on a colony of bees per 100 miles? 4. Have any of the readers of the BEE JOURNAL used W. T. Phelps' foundation machine with success? A. R. PATERSON.
Sheridan, Mich.

[1. One car will hold 150 to 225 colonies, according to size and style of hive; 200 one-story Langstroths is a very good car-load,

2. We prefer early spring for shipping; but it is perfectly safe in the fall, if not delayed till too cool to give the bees a good flight immediately afterward.

3. Where shipped in lots, as freight, for any considerable distance, somewhere between 15 and 25 cents.

4. We do not know.—ED.]

Bee Stings for Rheumatism.—I had about 38 colonies in the spring; 5 had old queens, which were superseded by young ones in the summer, and they only gathered about enough honey to carry them through this winter. The 33 with young queens done well and swarmed well. I sold 4 colonies for $7.50 each, and have put 61 in the cellar, all in good condition, with plenty of honey to last them through a hard winter, and not one queen over 2 years old next fall. I bought 1 Italian and 2 Cyprian queens. I lost one of the latter last winter; the other tried to make good the loss, and gave me 7 natural swarms. I thought it would swarm itself to death; I opened the hive and took out 8 or 10 queen cells, telling them not to swarm any more. This fall, to my surprise, I found the hive crammed full of honey. I had another colony that would swarm whenever another swarm came out near by, and go right in, and sometimes would go back to their own hive; they would come out 2 or 3 times a day, and were always ready to swarm. They done very well considering the season, the first part of which was very good here; then it became dry and hot and the bees could gather but little, after which the season was wet and poor. Regarding the bee-cure for rheumatism, the following case came under my notice: Mr. John Rohl, of this place, came to me and wanted me to let some of my bees sting him in the arm. I told him all right; I would not charge him anything; if it cured him I would have it put in the papers. So he rolled up his sleeve, and I gave him 8 or 9 stings on the elbow and arm-pit, which would make him jump as I took the bees by their wings and let them stick their lancets in his fleshy parts. About 4 weeks after I saw him and asked him about the cure; he said he was all right now, and swung his arm to show how limber it was; the swelling had all gone down. He said in Germany they always cured the rheumatism in that way, and he appeared well satisfied with the job.
THOMAS LASHBROOK.
Waverly, Iowa, Dec. 3, 1881.

High Temperature in Cellars.—Bee-bread seems to be all the talk with some of the BEE JOURNAL writers on the wintering problem; but I do not think it the cause of the trouble. The high temperature of many of the cellars is probably the cause. The temperature in the hive will be from 15° to 26° above the cellar, so that the bees are able to breed. The honey crop was good in this section. We are very much pleased with the Weekly BEE JOURNAL; you may consider me a life subscriber. W. H. MALLORY.
Worcester, N. Y., Nov. 29, 1881.

Honey Show Burned.—At the Kansas City Exposition, the honey show was all burned up in the main building. My loss was about $20 in honey and fixtures. The honey crop was about one-third with us. I had 47 colonies in the spring, out of 49 the fall previous; increased to 55; took 400 lbs. of comb honey and 300 lbs. of extracted, which I sold at 22½c. for the comb and 15c. for the extracted, at wholesale. Bees have been flying some for the last four days.
JAS. A. NELSON.
Wyandott, Kans, Nov. 30, 1881.

Changing Location of Cluster in Winter.—During a continuous cold spell of weather I have adopted the following plan, with success, for warming the interior of the hive and giving the bees an opportunity to change their location from empty to full combs: I take two or three bricks that are not hard burned, put them on the fire and heat them till there is no steam arising from them; now take them from the fire, and let them cool till you can pick them up with your hand, lay them right on top of the quilt on the tops of the frames; now put your chaff cushion down, and close all around snug. By this plan the hive will keep warm 6 or 7 hours; the heat passes off so slowly that the bees will all cluster nicely. After the bricks cool, they will absorb the moisture the bees generate. The bees will not attempt to fly out, but will carry the dead bees out on the alighting-board, if there are any. The plan works like a charm.
J. S. HOFFMAN.
Madisonville, O., Dec. 3, 1881.

Selling Comb Honey for Cash.—I have been a constant reader of the BEE JOURNAL for the last 5 years, and have during this time been in the bee business. My section is one of abundant yields, and the greatest question with me has been selling honey in large quantities for cash. I wrote my brother, Rufus Morgan, at Columbus, Wis., some time ago, that I was much interested in the BEE JOURNAL of late, as it was working up the question of the sale of honey for cash, and doing much to make it a staple article. I give you below his ideas of the cash value of comb honey. I will further state that he produced the past season over 15,000 lbs. of comb honey, all white; I think he made no report to any paper in regard to bees or crop taken. He is well posted and could give valuable experience, if he would. He has disposed of his whole crop for cash, and I am aware that he got 20c. per lb. right through, and a little at 22c. I quote a part of his letter without his knowledge: "Now, in regard to the bee business, I would say that the marketing of honey for cash, in large quantities, has no terrors for me, as we have shipped over $1,500 worth this fall with entire satisfaction, and it is much easier to ship than eggs or live stock, and just as ready sale as wheat. I would write you all about how to ship it, but I know you have not enough to pay to go on and make shipping crates this fall; but I would say that the great question in this business is, How can the most white honey, in marketable shape, be produced with the least labor? That is the only question that bothers me in the least. We have overcome all other difficulties in this business, I think, and that one, also, to a certain extent."
E. A. MORGAN.
Arcadia, Wis., Dec. 1, 1881.

[The trouble is not so much in selling, as in getting a nice article to market in presentable shape. As all are more or less interested in this subject, we hope Mr. Rufus Morgan will give our readers the benefit of his experience.—ED.]

Wintered on Summer Stands.—I have 58 colonies of bees on summer stands; 26 of them are in empty boxes without packing; the rest of them have the upper story on, with frames and combs. I use the simplicity hive.
J. CHAPMAN.
Home, Mich., Nov. 28, 1881.

Local Convention Directory.

1881. *Time and Place of Meeting.*
Dec. 15—S. E. Michigan, at Ann Arbor, Mich.
N. E. Prudden, Sec.
1882.
Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
10—Eastern N. Y., at Central Bridge, N. Y.
N. D. West, Sec., Middleburgh, N. Y.
11, 12—Nebraska State, at Ashland, Neb.
Geo. M. Hawley, Sec., Lincoln, Neb.
17, 18—N. W. Ill. & S. W. Wis., at Freeport, Ill.
Jonathan Stewart, Sec., Rock City, Ill.
17, 18—N. E. Wisconsin, at Berlin, Wis.
T. E. Turner, Sec. pro tem.
24, 25—Indiana State, at Indianapolis, Ind.
25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
25—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
26, 27—Western Michigan, at Grand Rapids.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
May ——Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.
25—Iowa Central, at Winterset, Iowa.
Henry Wallace, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

☞ The Nebraska State Bee-Keepers' Association will hold its annual meeting in Ashland, Neb., on the 12th and 13th of January, 1882. A cordial invitation is extended to all who are interested in bee-culture.
T. L. VONDORN, *Pres.*, Omaha.
G. H. HAWLEY, *Sec.*, Lincoln.

☞ The South Eastern Michigan Bee-Keepers' Association, will hold its annual meeting at the Court House in Ann Arbor, on Thursday (and perhaps Friday), commencing Dec. 15, 1881, at 10 a. m., for the election of officers for the ensuing year, and such other business as may be brought before the Association. A good attendance and interesting meeting is expected. Several subjects of interest will be discussed by able men.
N. A. PRUDDEN, *Pres.*
G. J. PEASE, *Sec. pro tem.*

☞ The eastern New York Bee-Keepers' Union Association, will hold their ninth Convention, Tuesday, Jan. 10, 1882, at 10 o'clock, at Central Bridge, Schoharie Co., N. Y.
W. D. WRIGHT, *Pres.*
N. D. WEST, *Sec.*

Special Notices.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

◆

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆

☞ Articles for publication must be written on a separate piece of paper from items of business.

◆

Photographs of prominent Apiarists—Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

◆

☞ When changing a postoffice address, mention the *old* as well as the new address.

◆

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

◆

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

The Color and Lustre of Youth are restored to faded or gray hair by the use of Parker's Hair Balsam, a harmless dressing highly esteemed for its perfume and purity. 49w4

◆

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

◆

Rheumatism is the most terrible disease that has ever afflicted humanity, yet it instantly yields to the powerful drugs that Kendall's Spavin Cure is composed of.

◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

◆

It is Worth Remembering that nobody enjoys the nicest surroundings if in bad health. There are miserable people about to-day with one foot in the grave, when a bottle of Parker's Ginger Tonic would do them more good than all the doctors and medicines they have ever tried. See adv. 49w4

◆

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums. Their own subscription may count in the club:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year.

Or they may deduct 10 per cent in cash for their labor in getting up the club.

◆

☞ We are sometimes asked who our authorized agents are? Every subscriber is such an agent; we have no others, and greatly desire that each one would at least send in one new subscriber with his own renewal for 1882. The next few weeks are the time to do this. We hope every subscriber will do his or her best to double our list for 1882.

◆

☞ The annual meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held in Temperance Hall, Freeport, Stephenson Co., Ill., on Jan. 17 and 18, 1882.
JONATHAN STEWART, *Sec.*

◆

☞ The Indiana State Bee-Keepers' Association is called to meet in annual session, Wednesday and Thursday, Jan. 24 and 25, 1882, in the rooms of the State Board of Agriculture. By order of EXECUTIVE COMMITTEE.

◆

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL, }
Monday, 10 a. m., Dec. 12, 1881. }

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. We quote light comb honey, in single comb boxes, 18@22c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@22c.
AL. H. NEWMAN, 972 W. Madison St.

NEW YORK.

HONEY—The supply is full, and trade is lively. We quote as follows: White comb, in small boxes, 18@22c; dark, in small boxes, 15@17c. Extracted, white, 10@11c.; dark, 7@9c.

BEESWAX.—Prime quality, 21½@23c.
THORN & Co., 11 and 13 Devoe avenue.

CINCINNATI.

HONEY—Is in good demand here now.
I quote: Good comb honey, in sections, is worth 18@20c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

BOSTON.

HONEY.—1-pound combs are a desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.
CROCKER & BLAKE, 57 Chatham Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 21@22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX — Best light 23@25c.—*Philadelphia Merchants' Guide.*

CLEVELAND.

HONEY—Our market for choice white honey in 1 lb. unglassed sections continues very active at 22c.; 2 lb. unglassed at 20@21c.; buckwheat rather slow at 18c. Glassed sections would have to be sold 3@4c. per lb. less. Extracted selling slowly at 12c. per lb.

BEESWAX—18@20c.
A. C. KENDEL, 115 Ontario Street.

SAN FRANCISCO.

HONEY—Receipts for the week over 700 cases. A little more inquiry is noted, but sales at extreme figures continue to be the exception.

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 8¾@10c.; dark and candied, 7@8c. BEESWAX—23@25c.
STEARNS & SMITH, 423 Front Street.

ST. LOUIS.

HONEY.—In larger (but poor) supply, and steady; comb at 18@22c.; strained and extracted, 9@11c. to 12½c.—top rates for choice bright in prime packages.

BEESWAX—Selling lightly at 19@20c.
R. C. GREER & Co., 117 N. Main Street.

CLUBBING LIST FOR 1882.

We supply the Weekly American Bee Journal and any of the following periodicals, for 1882, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage is prepaid by the publishers.

	Publishers' Price.	Club.
The Weekly Bee Journal (T.G.Newman)	$2 00..	
and Gleanings in Bee-Culture (A.I.Root)	3 00..	2 75
Bee-Keepers' Magazine (A.J.King)	3 00..	2 60
Bee-Keepers' Instructor (W.Thomas)	2 50..	2 35
The 4 above-named papers	4 50..	4 00
Bee-Keepers' Exchange (J.H.Nellis)	3 00..	2 75
Bee-Keepers' Guide (A.G.Hill)	2 50..	2 35
Kansas Bee-Keeper	2 60..	2 50
The 7 above-named papers	6 30..	5 50
Prof. Cook's Manual (bound in cloth)	3 25..	3 00
Bees and Honey, (T. G. Newman)	2 40..	2 25
Binder for Weekly, 1881	2 85..	2 75
Binder for Weekly for 1882	2 75..	2 50

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State Agricultural College of Michigan.

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Read the following opinions of the Book;

All agree that it is the work of a master and of real value.—*L'Apiculture*, Paris.

I think Cook's Manual is the best of our American works.—LEWIS T. COLBY.

It appears to have cut the ground from under future book-makers.—*British Bee Journal.*

Prof. Cook's valuable Manual has been my constant guide in my operations and successful management of the apiary.—J. P. WEST.

I have derived more practical knowledge from Prof. Cook's New Manual of the Apiary than from any other book.—E. H. WYNKOOP.

This book is just what everyone interested in bees ought to have, and which, no one who obtains it, will ever regret having purchased.—*Mich. Far.*

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It is a credit to the author as well the publisher. I have never yet met with a work, either French or foreign, which I like so much.—L'ABBE DU BOIS, editor of the *Buletin D'Apiculteur*, France.

It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat*, Pulaski, N. Y.

We have perused with great pleasure this *vade mecum* of the bee-keeper. It is replete with the best information on everything belonging to apiculture. To al taking an interest in this subject, we say, obtain this valuable work, read it carefully and practice as advised.—*Agriculturist*, Quebec.

This book is pronounced by the press and leading bee-men to be the most complete and practical treatise on bee-culture in Europe or America; a scientific work on modern bee management that every experienced bee-man will welcome, and it is essential to every amateur in bee-culture. It is handsomely printed, neatly bound, and is a credit to the West.—*Western Agriculturist.*

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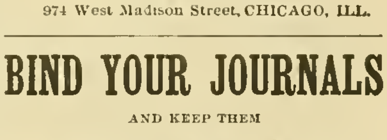

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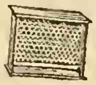

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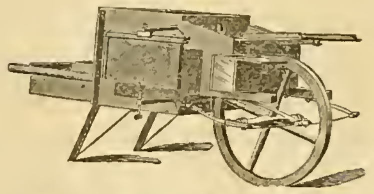

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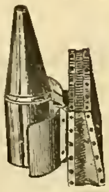

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The work contains 1,016 pages, is a veritable Treasury of Useful Knowledge, and worth its weight in gold to any Mechanic, Business Man, or Farmer. Price, postage paid, **$2.50.**

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Ropp's Easy Calculator.—These are handy tables for all kinds of merchandise and interest. It is really a lightning calculator, well bound, with slate and pocket. Cloth, **$1.**; Morocco, **$1.50.**

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Assorted samples of the four sizes, put inside one another as a nest, price 50 cents. These pails are very useful for many other purposes, after being emptied of the honey by consumers. The following are the prices:

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I now have on hand two sizes of Colored Labels for these tin pails (one size for pints and quarts and another for half-gallons and gallons), and can supply any quantity of either size, by mail, postpaid, at 1 cent each. When 100 or more of either size is ordered, I will print your name and address on them without extra charge. Prices for larger quantities than 200 given upon application.

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ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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Hints for a Beginner.

Mr. W. D. Smyser, Nineveh, Ind., under date of Dec. 9, writes that he has three colonies, partly prepared for winter, and wants the best method of treatment at this late date. He asks, "Ought bees to roar if they are all right? I have one colony that I can hear roar in the gum down through two feet of chaff. Will it do to look at them in cold weather? Must they be kept shut up during the cold days of spring?"

If weather is warm enough to allow the bees to fly freely, the following will be the best course to pursue: Construct a box six inches larger each way than the hive; put in about four inches of chaff; cut a hole in the side opposite the entrance; set the hive in the box, and put in a wooden tube to connect the entrance with the hole in the side of the box, to allow the bees to go in and out at all times, and to supply fresh air; pack chaff inside the box around the hive; remove the cover of the hive, and spread two or three thicknesses of old gunny cloth, carpet or drilling over the bees, fill up the box, over the hive, with chaff, put a cover on the box to keep out rain and snow, replace where the hive formerly stood, and the work is done.

If the weather be very cold the quickest, and perhaps as safe a plan as any, will be to stand cornstalks around each hive, being careful to turn over and bind the tops, to keep all dry inside. Great care must also be taken to part the stalks at the foot, opposite the entrance of the hive, to afford an opportunity at all times for an unobstructed flight.

In the methods advised above, we make no recommendation regarding the interior of the hives, for, with the season so far advanced, and the liability of a change in the weather from one extreme to another at any moment, any unusual disturbance of the cluster will be attended with risk, and no plan should be attempted which cannot be accomplished without the knowledge of the bees. Bees should not be "looked at" nor otherwise disturbed in cold weather, and should be left with their winter preparation till settled weather in spring. The entrance should never be entirely closed, and should it become closed with dead bees, they should be gently drawn out with a bent wire.

In view of the advanced season, the unusually favorable weather heretofore experienced, the general prevalence of an abundance of good, wholesome honey, and with our present impression regarding the remainder of the winter to come, with strong colonies of bees, we should experience but little uneasiness even though we had been wholly derelict in preparing them for a long, cold siege; and we would not be at all surprised if the majority of loss this winter was the result of well meant, but injudicious kindness, in contracting too much and packing too warm, thereby causing restlessness, or inducing flights when the temperature of the atmosphere would not justify it. Up to this date (Dec. 16) the winter has been unusually propitious, the bees have had numerous flights at favorable intervals, and indications of dysentery or other disease are very rare.

The roaring referred to by our correspondent, is occasioned by packing too warm, obstruction of entrance, or jarring and frightening the bees, and is very unfavorable.

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☞ After New Year's day, money-orders are to be exchanged between the United States and the Australian colonies. The change will greatly facilitate commerce.

◆

☞ The BEE JOURNAL of next year will be stitched, the edges trimmed, and each number will have 16 pages.

Honey as Medicine.—On page 402, may be found a recipe for Cough Syrup, from Dr. Tinker, who says it may not be advisable to introduce any medicinal matter into the BEE JOURNAL. We think otherwise, however, for we believe that pure honey is not only excellent food, but invaluable as medicine. The Doctor says:

> "Much of this preparation has been used here with highly satisfactory results, and it has been the means of selling several gallons of extracted honey."

We have sent the Doctor a copy of our pamphlet on "Honey as Food and Medicine," which we are pleased to know has done much to popularize honey as medicine as well as food in many localities.

◆

How to get the Weekly Bee Journal free of cost for 1882.—Until further notice, any subscriber who desires to obtain a good book on apiculture, can have either Cook's Manual, Quinby's New Bee-Keeping, or Novice's A B C, bound in cloth, postpaid, and the Weekly BEE JOURNAL for one year, for $3.00; or with King's Text-Book, or Blessed Bees (a romance), bound in cloth, for $2.75. The JOURNAL and all five books for $6.00. This is a rare chance to get a good library on bee-keeping. A person can sell the books for their published price, $6.00, and get the Weekly BEE JOURNAL *free* for his trouble.

Those having already paid for the Weekly BEE JOURNAL for 1882 may send for the books alone and deduct the $2 already sent for the JOURNAL.

◆

☞ If any numbers of this years' BEE JOURNAL have been lost, look them over at once and send us a Postal Card stating the missing numbers and we will send them *free*, as long as we have any left.

◆

☞ Binders cannot be sent to Canada by mail—the International law will not permit anything but samples of merchandise of less weight than 8 ounces. Canadians will please remember this when ordering Binders.

◆

☞ Look at the wrapper label and see that proper credit is given for money sent us, within 2 weeks. If it does not then appear, please send us a Postal Card, and we shall with pleasure make the correction, for an error may occur during the rush at this season, though we endeavor to be careful to always give proper credit.

Doolittle's Club List, and Catalogue of strawberry and raspberry plants, grave-vines, potatoes, etc., is received. It is printed by Mr. A. I. Root, and makes a very creditable appearance. Mr. Doolittle states that he has been engaged by us to write 20 articles during the year 1882 for the AMERICAN BEE JOURNAL, and adds:

> The Weekly AMERICAN BEE JOURNAL for 1882 will contain 16 pages of 3 columns each, which enlarges it one-third, as well as securing for it a more attractive form, thus making it more valuable than in 188t, and placing it at the head *of all bee journals in the world*. As friend Newman prefers to have the BEE JOURNAL omitted from all clubbing lists, we have left it out. However, if you wish to send your subscription to us, when sending for other papers, we will forward the $2 to Mr. Newman free of charge.

On the AMERICAN BEE JOURNAL and *Gleanings* Mr. Doolittle can make no deduction. On all other bee papers the price is "cut," more or less. We do not approve of the practice, and, sooner or later, it must be abandoned by all papers that are worth their subscription price. Any deduction given to an agent, is intended to pay for the time and trouble of procuring the club, and should *never* be used to "undersell" the publisher.

◆

The Apiary Register will be ready to send out early in January.

It devotes 2 pages to each colony, embracing between twenty and thirty headings, neatly ruled and printed, with space at bottom for remarks, and so arranged that a single glance will give a complete history of the colony. Each book will also contain printed rules for the apiary, and twelve pages ruled and printed for an apiary cash account. As each book is intended for a several years' record, it is gotten up on first class paper, and strongly bound in full leather covers. There will be three sizes, sent postpaid, at the following prices:

For 50 colonies (120 pages)......	$1 00
" 100 colonies (220 pages)......	1 50
" 200 colonies (420 pages)......	2 00

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable ones to procure at the start. We have added these to our new Premium List for getting up Clubs for the BEE JOURNAL, as will be seen on page 407.

Send in your orders at once, and the books will be forwarded as soon as completed.

CORRESPONDENCE.

For the American Bee Journal.

Mr. Heddon and "That Coming Bee."

E. L. BRIGGS.

While reading Mr. Heddon's article in the last Journal on "That Coming Bee," I was peculiarily struck with that beautiful, graceful smile which lighted up his countenance, or rather his "pen," at the method of Mr. Briggs, in the late prize effort in procuring the best stock of queens to breed from. After saying: "While I sympathize with the end in view, I must say that the method he employs to reach it causes me to smile with my pen, and is not at all the one I follow, advocate or believe in." He says, "I will explain."

As Mr. Heddon had been compelled, forced, urged by his pent-up forces, and drawn out by his sense of the public good, to utter the above important dissent to Mr. B.'s method, will he please to tell us what method "he does follow, advocate, and believe in?"

Well, here is the response: "First, let us consider the four points of excellence that Mr. B. makes the test: 'The largest in size, herself, and producing the largest worker progeny.'"

Mr. Heddon does not "follow, advocate or believe in" procuring the largest queens and workers at all, for he continues: "I have seen small queens that produced large, gentle and industrious workers, and such queens should not be reckoned as second-class." Therefore, the "first smile was penned." Mr. Heddon has smiled with his pen, therefore, if bee-keepers want the largest bees, such as can work on red clover, they should get one of the smallest queens whenever they buy a queen, for remember Mr. H.'s experience—remember his smile! He don't "believe in, advocate or follow" the method of breeding the largest queens for the largest workers.

Second. Producing the brightest colored workers. Mr. H. pens his second smile and dissents as follows: "The experience of the most extensive importers and honey producers is, that the dark Italians are superior to the bright ones." Therefore, as Mr. H. does not follow, advocate or believe in producing light-colored bees, when you desire queens, order small dark ones; it will be so much more convenient for any one to fill your orders without any question arising afterward as to the purity of the queens you receive.

Third. "Producing a progeny the most peaceable in handling, and adhering to the combs the closest." After saying he does not follow, advocate or believe in my method at all, it seems a little singular to hear him say, "We agree exactly about the peaceableness, but I consider the adherence to the combs of minor consideration compared with other points of merit." Well, it makes me glad to find that Mr. H. and myself are in exact agreement on this third point of excellence, for I, too, deem adherence to the combs of minor importance, as compared to some other points. For instance, industry, size, prolificness and gentleness. Yet it is very convenient and agreeable while handling a frame, not to have the bees rush to some corner of the comb, ball up there, and tumble off in a mass upon your boots, or the ground, and from thence crawl up your ankles and legs, especially if they get next to the skin. My smiles are apt to all vanish on such occasions. Nor is it much more agreeable to have them take wing as the dark, brown and hybrids do, and dab into your neck, eyes and ears every second or two. So, whether of major or minor importance, I choose to cultivate for instinctive and tenanacious adherence to the combs while handling them.

Fourth. "As far as it can be ascertained this fall, the most prolific breeder, and honey gathering offspring." Mr. Heddon again dissents to the first named quality, "prolific breeder," but agrees with the latter, "prolific honey gatherers." I always smile with gladness, when, at the beginning of honey harvest, I find my apiary consisting of colonies from which are pouring out and in tens of thousands of large, golden, industrious, gentle and vigorous honey gatherers, and nurses of the brood of a queen which keeps every vacant cell filled with eggs, larvæ or bees ready to issue. But here are his somewhat contradictory remarks: "I deem it a great mistake in bee-keepers to cherish and encourage this quality of prolificness * * I find that the most profit lies in using a hive of that size that the very moderately prolific queen always keeps full of brood. Small hives for surplus." But this is the hive question, Mr. Heddon, and not the queen-breeding qualities. But even then it is a good thing to have this "very moderately prolific queen" keep her hive "full of brood," as admitted above.

To sum up, Mr. H. follows, advocates and believes in—1. Small queens. He has seen some which produced large workers. 2. Very dark queens. "These are superior to bright ones." Three. Very restless bees and queens while being handled, is a matter of minor importance. 4. "Very moderately prolific queens," because they can only fill small hives. 5. He agrees that the honey gathering instinct and peacableness are qualities rather desirable, but he does not follow, advocate or believe in my method of procuring mothers of such instincts to breed from.

It was precisely because Mr. Heddon and some others were not "following, advocating and believing" in the method of breeding only from the very best selected stock, from among the very best variety of bees, that I chose the method I did to get a half dozen of the very highest grade of queen bees from among the Italian race, to be found in America or elsewhere. I could have sent to Mr. H. or any one else, and procured haphazard queens, such as described, for a couple of dollars each, and when procured, they would not have been as good as those I had already, in one case in ten. But the result was, in five cases out of the six, I received a superior queen—selected by her breeder with the special idea of outranking all her competitors.

So confident am I of its successful result, that I hereby offer a prize of $20 for a queen sent me by any one which will out-rank the ones I have received in the several points named, provided that if she falls below, the sender receives nothing for her, as a price, for I do not wish to be bothered with inferior stock in receiving and inserting and caring for them when no better, or not even as good as my own.

In conclusion, I give Mr. Heddon my very best bow and smile, in return for his criticism, and hope he may pursue that method which will result in producing "that coming bee," which can work freely on red clover, be the gentlest to handle, and the greatest honey producer in the world.

Wilton, Iowa, Nov. 17, 1881.

SELECTIONS FROM OUR LETTER BOX

Honey Cough Medicine.—The following is a recipe of a valuable remedy for obstinate coughs. It is especially valuable for long-standing coughs in elderly people, and useful in all cases unattended with a hot skin and very frequent pulse: Extracted honey; Linseed oil; Whisky, of each, 1 pint; mix. Dose,—one tablespoonful 3 or 4 times a day. DR. G. L. TINKER.

New Philadelphia, O., Dec. 6, 1881.

Comb Honey in Sections.—Will Prof. Cook please give in the Weekly Bee Journal the new method of obtaining section honey explained by him to the Michigan Central Convention, and given in report of same in the Bee Journal on page 382.

J. C. THOM.

Streetsville, Can., Dec. 5, 1881.

Every Number Worth a Dollar.—I send the money for the Weekly Bee Journal for the next year. I would not lose any number for a dollar bill.

D. HIGBEE.

Avoca, Iowa, Dec. 9, 1881.

Labeled Pure.—I have tried to practice the teachings of the Journal, I love so much, and find it pays to warrant every pound of honey I sell to be pure honey. I did this last year, putting on labels, and I think from the way my old customers return, and new ones ordering honey, that it gave good satisfaction. I have not been able to supply one-half of our home demand. JOHN MEADER.

Delaware, Iowa, Dec. 13, 1881.

[You are quite right; it does pay to warrant all your honey to be the genuine and pure article, and to label it so. It inspires confidence, and aids the general work of increasing the demand for and consumption of honey. —Ed.]

Bees in Fair Condition.—Bees went into winter quarters here in fair condition. Last fall I had 21 colonies of black bees; had 5 left in spring; have 10 now, 5 of them Italians. Success to the Bee Journal.

THOMAS J. WARD.

St. Mary's, Ind., Dec. 13, 1881.

Four Years' Experience.—In the spring of 1878 I bought 3 colonies of bees—1 in box and 2 in movable frame hives: I increased them to 6, caught 1 wild swarm, and bought and sold some in the winter. I began the spring of 1879 with 10 frame and 3 box hives; the latter swarmed 7 times, and gave but little honey; the 13 averaged 63 lbs. per colony; from one I obtained 126 lbs., and from another 112 lbs. I think I increased to 22, and sold down to 16. In the spring of 1880 I sold 1 and exchanged queens for 1, as I was interested in Italianizing all around me. This was the no-honey year, and I reared and sold queens enough to pay expenses. I winter in a cellar, and my loss has been 1 colony and 1 nucleus, which starved through my neglect last winter. My bees showed some signs of dysentery, but came through in good shape; I took 17 out of the cellar, and before honey began to come in I had sold down to 10 extra good colonies. It was dry here early, and bees did not begin in earnest till about June 10, when it was lively; it made me smile to see the little fellows bring in the nectar. From my 10 colonies in the spring I obtained 1,640 lbs., or 164 lbs. per colony, about $\frac{1}{3}$ extracted, and the remainder comb without using separators, the most of which I can pack in crates. I used whole sheets of foundation. My best yields were from my best Italians; 1 colony giving me 237 lbs. of comb and extracted, another 146 lbs. of comb, and a third 68 sections $5\frac{1}{4}x6\frac{1}{4}$ of comb honey. The last colony I divided, and with its increase gave me 105 sections. Others done quite as well; I had to extract from the brood chamber to give the queen room. I increased to 17 colonies and 3 nuclei, which I put in the cellar on the 14th inst. I have tried the Cyprians some, and can see nothing superior in them except prolificness. Unless I was working for bees instead of honey, I can see no advantage in them. A good portion of the time this summer, there was brood in the 9 frames, and some that had on second stories laid in 2 or 3 frames there. I will try all the races, but shall breed most of my queens from my best Italian stock.

R. GAMMON.

Rockton, Ill., Nov. 22, 1881.

Feeding in Winter.—Please let me know through the Bee Journal the best way to feed bees in the winter—whether candy made of A sugar or syrup? I have a colony I think I will have to feed. R. P. WILLIAMS.

Goldsmith, Ind.

[If in a good cellar, or if at the time of feeding the weather be so warm that the bees can put the feed where they can use it, then thick syrup will be best; but if too cold, then use the candy, laying $\frac{1}{4}$ inch square sticks on top of the frames, the candy on these, and carefully covering with blanket, mat or quilt. The exhalations from the bees will moisten the candy so they can consume it. Give them sufficient to last till moderate weather, as the candy will attract all the bees to the tops of the frames, and they cannot be again fed without much disturbance.—Ed.]

Good Honey Crop.—I lost all of my bees last winter except 5 colonies; they were rather weak. I lost the first swarm; then I divided, and with the addition of one new swarm increased to 12. They gathered in all 1,000 lbs. of honey. I packed them in leaves and cornstalks for the winter.

E. C. CRANE.

Burlington, Iowa, Dec. 12, 1881.

Better than Bee-Books.—I have carefully filed every number of the Bee Journal for the past 2 years, and will have them bound. They are really better than bee-books, and I do not see how a bee-keeper can get along without the Weekly. Send it along for next year, and next, and next; yes, as long as I live and keep bees I shall want the American Bee Journal.

B. F. CARROLL.

Dresden, Tex., Dec. 12, 1881.

Alfalfa Clover.—Is alfalfa clover a honey plant, or do bees gather honey from it? A. S. EDSON.

Brooklyn, Mo., Dec. 12, 1881.

[Yes; it is said to be an excellent honey producer, but we have had no experience with it, and cannot speak from personal knowledge.—Ed.]

Bee-Keeping in North Carolina.—There are about 300 colonies in frame hives in this county, but no intelligent management, as our people will not read. I commenced the spring with 36 colonies, increased to 50, and took 2,300 lbs. of honey, mostly extracted. I sell in Baltimore at 12 to 15 cents per pound for extracted, in tin cans, mostly in 3 and 6 pounds. I have purchased 15 colonies from a neighbor, and will buy more. I expect to commence the spring with 75 colonies. We have not as good honey resources as in some of the Northern and Western States, our season of surplus commencing about April 15 and ending June 1st; but in good seasons we get a fair yield of honey, and then we are free from the fussing and fearful losses attending wintering as in the colder Northern climate. So, upon the whole, there is nothing to prevent the intelligent bee-keeper from making the business pay at least moderately well.

Clinton, N. C. W. P. WEMYSS.

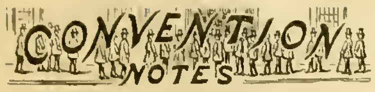
* * *

☞ The Nebraska State Bee-Keepers' Association will hold its annual meeting in Ashland, Neb., on the 12th and 13th of January, 1882. A cordial invitation is extended to all who are interested in bee-culture. Members will be returned to their homes by the railroad companies at 1 cent per mile.

T. L. VONDORN, *Pres.*, Omaha.
G. M. HAWLEY, *Sec.*, Lincoln.

* * *

☞ The eastern New York Bee-Keepers' Union Association, will hold their ninth Convention, Tuesday, Jan. 10, at10 a.m., at Central Bridge, Scho. Co., N.Y. W. D. WRIGHT, *Pres.*
N. D. WEST, *Sec.*



Michigan State Convention.

The 16th annual meeting of the Michigan State Bee-Keepers' Society, was held at Battle Creek, Mich., on Dec. 8, 9, 1881. Pres. Prof. A. J. Cook in the chair. The Secretary not having arrived, Mr. H. D. Cutting was appointed Secretary *protem.*, who read the following on

How to Maintain the Purity of Italian Bees.

The superiority of the Italian bee over our native black or German bee is so well established, and so well known, that it would be superfluous for me to speak of any of their good qualities.

The introduction of the Cyprian and Syrian bees has also proven that the Italians are the best bee known to the American apiarist, and we doubt that they have any superiors in the world, or any equal to them. All we have to do is to maintain their purity and improve their good qualities to the highest standard of excellence.

How shall we accomplish this?

It is generally admitted that Italians are not a fixed race. This is well established by the irregular markings of the queens and drones, and I have no doubt there are different grades of purity among them, as I have had Italians breed uniform queens and workers, but very irregular in the markings of their drones. I have had other colonies of Italians that gave no uniformity in any of their progeny, the workers having 3 to 5 yellow bands. These are the most prolific breeders and the greatest swarmers.

As to the breeding of Italians to the standard of purity—three or more yellow stripes, is quite easily managed where only blacks and Italians and their hybrids abound, as we can continually supersede all queens that produce workers with less than three yellow stripes.

In the parts of our country where the Cyprian and Syrian bees have been introduced, Italians cannot be bred pure with my degree of certainty, as those races of bees are said to be about the color of ordinary Italians, or perhaps yellower.

If they are (as some assert) more yellow than the ordinary Italian, we could not condemn an Italian queen because she produced workers with more than three yellow bands, because Italians with 3 to 5 striped workers were plenty in this country before the introduction of yellow bees into this country or Italy.

I would recommend that all parties having those new races of yellow bees, at once completely supersede them by the best strain of Italians which they had before they introduced those races, or by purchasing breeding queens from reliable breeders where they have not been introduced. To all others I would recommend the latter course.

What are we to do about imported queens from Italy? I understand those new yellow bees are introduced there. If we import queens from Italy, we shall experience the same difficulty in testing their purity that we have in breeding them together here.

I would urge our Italian friends to at once supersede those new races of bees, as I have just recommended our Americans to do, and I think, or hope, they will not have much demand for their queens in America. The introduction of those new races of bees has proven anything but a blessing to the apiarists of America. I am not disappointed; I expected no better results.

Now if we expect to maintain purity in our noble Italians, we must procure our breeding queens from the best sources possible in this country or Italy.

By proper care in selecting our breeding stock, we may not only keep our Italians pure, but improve their already superior qualities.

Palo, Mich. S. K. MARSH.

Prof. Cook thought that this judgment was too hasty, as the good qualities of the Cyprians and Syrians should not be overlooked. He thought that Mr. Jones had done a great thing for the bee-keepers, in giving them an opportunity to compare the different races.

Mr. Haikes had three varieties, and preferred the Syrians, but was not yet ready to pronounce decidedly in their favor.

Mr. Cobb offered a resolution that the Convention disapprove of the sentiment expressed in Mr. Marsh's paper. Carried.

Mr. D. A. Jones then addressed the Convention as follows, on

The New Races of Bees.

Years ago I became convinced that black bees were inferior to Italians, and as I was always determined to have the best, I purchased from many of the best and most noted American breeders and importers; I also imported, myself, and while the black bees appeared to be a pure race, the Italians appeared to differ greatly in many respects. I found that I could select and breed in almost any direction, especially dark and light; that there were great differences in color and quality; that there must be a mixture somewhere, and that the Italians were not a pure race; although superior to black bees, I found as much difference in their wintering qualities as I did in their honey gathering qualities, or strength of colonies. Hearing that the Cyprians were a superior race, and seeing no chance of securing them in their purity otherwise, I decided to shoulder the responsibility of importing them, and employed Mr. Frank Benton of your State (who is well and favorably known to many of you as a reliable and enthusiastic bee-keeper), then, going personally to Europe, Asia and Africa, enduring much hardship and at great expense, succeeded in landing safely in America, Cyprian and Syrian bees in their purity. The first season I did not test them sufficiently to decide their qualities thoroughly, yet I was much pleased with them.

Being absent from home so long in the East, and then having my islands to select and breeding establishments to arrange, and then I was too busy to give them as close attention as I would have liked to, but as I keep trained and thoroughly practical bee men and close observers, I was assisted much in noting their characteristics. We first observed their wonderful prolificness over Italians or blacks; in fact, the Syrian queens lay an incredible number of eggs in a day. I was more favorably impressed with the Syrian bees than the Cyprians, even in Palestine, as I found them there traveling such incredible distances for honey, although the Cyprians will travel much longer distances for honey than the Italians or blacks, besides, they fly much faster.

The Syrian bees will fly as far, empty themselves and return for another load in about 13 minutes, as Italians or blacks do in 17 minutes, and Cyprians are not much behind them in speed of flight; besides being swift in flight, they are less liable to be knocked about by storms and wind; they are more sensitive, or possess greater knowledge of atmospheric changes, and return to their hives before the storms with wonderful rapidity and exactness.

I was unable the first season, owing to my late arrival from the East, to test their honey gathering qualities fully, but found them breeding four times as much as others late in the season, and yet kept their hives stored with as much and more honey than others, thus showing their ability to gather sufficient for extensive brood-rearing and storing equal to others.

Now, as winter appeared, I placed one small colony of the Syrian bees in a hive, and two stronger ones in a way that their wintering qualities outdoors might receive a severe test, arranging Cyprians, Italians, hybrids and blacks in a way that I might note facts. Now for the results: A black colony, by far the strongest, wintered worse; hybrids and Italians about equal; Cyprians wintered better than Italians, hybrids or blacks, and Syrians better than the Cyprians. Now, one swallow does not make a summer, nor one test form proof positive, in my opinion. Now for spring: I found them last spring building up stronger and earlier than any others. One quart of Cyprians or Syrians, especially the latter, will build up and be stronger when white clover blooms, than 3 pints or 2 quarts of black or Italian bees, in fact, they spread out and breed so fast that if a cold night occurs, the entrances should be closed to prevent the brood from chilling. Now this year has more firmly convinced me of their ability to gather large quantities of honey. If they can gather more honey, besides breeding doubly as much, does that not prove that if their honey was not used in brood rearing, they would nearly double their rivals in honey gathering? There is no trouble in coaxing them into the boxes for box honey. They will gladly welcome any place where they can carry the honey out of the way of the brooding; they will work in boxes and sections when no others will; they build more queen cells and care better for them than either Italians or blacks.

In one instance I recollect, a colony that I took from Mount Lebanon, carried it to the coast in a water jug, and thence by steamer to Larnaca (my Cyprus apiary), and, to my astonishment, I found in the native hive when I went to transfer it, no less than 60 young queens all crawling about lively in the hive, and about 180 nice, large queen cells just ready to hatch, showing that they must have constructed nearly 250 large, fine and well-developed queen cells. They worked well on red clover this year, and would almost stand on their heads trying to press their proboscis down further to get the honey from the bottom of the clover tubes. They have no equals as energetic workers, and are both moth and robber proof. I have a very large number of Syrians and Cyprians, both imported and home bred wintering, and will carefully note results. They are more sensitive and require care in handling, for, if aroused, they show the same energy that they do in other respects—not to be beaten.

I had one colony of Cyprians that was decidedly cross, and on two occasions after they were aroused by improper management, they forced me to walk away from the hive until they settled down. I had from 2 to 300 colonies in my home apiary in the very center of the town, and on the corner facing the two principal streets, with nearly all the stores facing my bee yard, and also a hotel—the bees within 30 feet of both main streets, and millions flying over the heads of people and horses passing, and I have not known one instance where any one was stung.

Thus far my preference is for the Syrian bees over all others; they are more prolific, wonderful breeders, superior honey gatherers, and so far, have stood the winter best.

Mr. A. I. Root said that there is a great diversity of opinion concerning the new bees, but they are gaining in favor. They are exceedingly prolific, and very good honey gatherers.

Mr. Harrington's experience with the Syrians was similar to the last speaker's. He had found that queens fill a comb before leaving it. They would not attack if not disturbed; young queens are very active.

Mr. Jones. The Syrians are so rapid in their motions that they are difficult to introduce to colonies of other varieties. Fertile workers are more often found in colonies from queens that had themselves been good layers.

Mr. A. B. Weed then gave the following address on

Shall We Continue to Import Italian Queens?

I assume that the same laws underlie the breeding of bees as of other animals, and since our knowledge of facts relating to the breeding of bees is limited, I will draw conclusions, based in a measure upon the broader bases of the recognized laws of stock breeding.

The most easily understood of these laws is "like produces like." All through the realms of nature there seems to be a constant struggle between uniformity and variety. We never find two of anything exactly alike, although their general characteristics may be the same. At first sight it seems as if nature was at variance with herself, but investigation shows that her laws are working in harmony, and if understood may be controlled. Their apparent discord is explained, the influences at work, the obstacles to be overcome, and the objects to be attained are understood.

To understand the elements which go to make up an animal, it is necessary to know, not only its parents, but their ancestors also. The further back our information extends, the more satisfactory it is. The progenitors of an animal vary, and the animal may resemble any one of them. In case it does not resemble its immediate parent, but is like a remote ancestor, it is called a sport. Here we see nature following the law of uniformity, and yet its effect is sometimes variation. This resemblance to a remote ancestor, or ativatism, as it is called, is one of the most important factors in scientific breeding. It can be readily seen that the larger the proportion of progenitors we have in a pedigree which have the traits we are endeavoring to obtain, the greater will be our success. Pedigree is the main dependence of the breeder; it is variation which gives opportunity to make selection of breeding stock.

It is here that the skill of the breeder is especially required, and it is upon this that his success largely depends. Whether selection had best be made by the breeder, or the mating of animals be left to their own choice, there seems to be a difference of opinion. By some, it is held that by the latter process, the poorer specimens will be culled out, and only the superior ones left to perpetuate the race. This theory almost recommends itself at first sight; but upon careful search, I can find nothing to support it; the burden of evidence is opposed to it. In every instance, as far as I can find, a carefully bred animal is superior to its prototype in the wild state. I think that the reason of this fact, if it is a fact, is that man selects more carefully than does nature, and with a definite aim; and his choice breeding stock is guarded from accidents. Also when an advance is made it is retained. Man selects more closely than does nature. When she has a hundred specimens, she rejects perhaps half of them. In a similar case, man would use but a single one. If the queens which are to stock our hives are to be carefully bred, and not taken at random, the question follows, who shall breed them?

It is generally held by breeders that the proof of long-continued, careful breeding, is to be found in a uniformity of offspring; also that a diversified progeny indicates a diversified ancestory. If this test were applied to the queens which we receive from Italy, it would show them to have black blood, and to be the result of careless breeding. There are breeders among us whose queens are uniformily good and well-marked. In every instance, as far as I can find, these men have kept the same strain of blood for a series of years, and made careful selection in each generation. There are apiarists with whom I am acquainted, who would not breed from a queen that was not better than most of those imported.

It is sometimes said that we must continue to import only until the majority of the drones throughout the country are of the desired race. Even if it were not true that we can rear our drones as well as our queens, that time seems to be nearly, if not quite here. Italian blood is widely disseminated through the country, and many of the so-called wild bees are now in part, or wholly of this race. Says Mr. A. I Root, in speaking of the character of the bees which he is buying promiscuously through the country: "I have frequently purchased colonies during the last few weeks as nicely marked as any in our apiary. These, too, came from those who have never taken any notice of Italians at all."—*Gleanings for Aug.*, 1881, *page* 401.) I have quoted Mr. Root here, as his experience is so large, that his testimony is valuable.

It is thought by many that in-breeding is injurious, and that it is necessary to go frequently to the original source for fresh blood. As to just what in-breeding is, I can find no exact deffinition; it is generally agreed that by it is meant the breeding together of relations, but just how close the relationship must be to deserve the term, our practical breeders have not determined. Sometimes when degeneracy or disease follows close breeding, they are believed to have been caused by it, whereas they might have existed otherwise. In-breeding has been an indispensable aid in establishing our best breeds of domestic animals. Their pedigrees show it to have been carried to a very great extent, yet they are the most valuable animals we have. Even if fresh blood were desirable, it seems doubtful if we could get it from Italy, as the stock which we have now was originally from that source.

I know of no better way to improve our bees than that followed by the breeders of larger stock. During the last 20 years that apiarists have been importing their bees, the other breeders have been diligently improving their animals by selection, importing comparatively but little. The improvement that they have made, we all know is very great. The stream has risen above its source, and shipments of breeding cattle from this country to their original homes are actually taking place. I think that it is not too much to say that America leads the world in live stock. Some Americans who have acted with care and intelligence, together with good judgment in breeding their bees, have obtained valuable strains, but I do not think that improvement has been general. The stock of those who have depended upon importation, has not been improved in this way, but necessarily represents that of the country from which it came.

I can find no evidence that Italy has improved her stock during this time. I think if we had kept pace with the breeders of larger animals, that it is safe to say that we would be inestimably in advance of where we are now. If this view of the subject is right, importation is carried on not only at the cost of money, but also of all possibility of improvement.

Mr. A. I. Root thought that if bees were bred carefully that they would be so valuable as to command almost any price.

J. H. Townley thought that almost anything could be done with them by selection.

Mr. Walker had found Southern bees larger than those reared in the North.

Mr. Jones had obtained very large bees by having them bred in extra large cells.

Sweet and alsike clovers were recommended, especially on sandy soils.

Mr. Root had Italians on red clover and blacks on buckwheat at the same time.

The President believed that importations should be continued.

AFTERNOON SESSION.

On assembling, Mr. H. D. Cutting gave the following address on

Bees and Grapes.

I am well aware that much prejudice exists in the minds of some horticulturists in regard to bees doing damage to their grapes and other fruits.

I have talked with many fruit men who say: "The bees swarm on my grapes and destroy large quantities of them." Others say: "The bees swarmed on my fruit, but I found they were after damaged fruit, and did not touch any fruit that was sound."

About five years ago I commenced a series of experiments to ascertain whether bees did damage grapes and other fruits. I found that the bees would work on grapes, if in a damaged condition. I found that the wasps and birds did the damage in many cases, and then the bees would finish up their work. Great changes in the weather at times of ripening, would cause grapes to crack open ever so little, and the bees would clean them out. In the whole five years I failed to find a single case where bees did actually bite open the skin of fruit and destroy it; but if there is the least opening in the skin from any cause, and the flow of honey is scarce, they will clean out all damaged grapes, but will not visit fruit of any kind if honey is plenty.

But I ask, is it not a benefit, in place of a damage? None of us want to pack fruit in a damaged condition, grapes especially; for, if on a cluster of grapes are only a few cracked ones, it will spoil the whole cluster and all others they come in contact with, if they are kept long.

I have seen thirty varieties of grapes; some very early and some very thin-skinned, and I cannot get my bees (and I have had 4 varieties), to touch them. I have cut fine clusters of very ripe fruit and placed on the platforms of the hives, and the bees would go over and around them. I then cut small openings in a few berries, and in a few moments they were covered with bees, cleaning them out. After finishing all those cut, they went all over the sound ones, but did not cut one of them. I made pin holes in a few of them with the same results; all so treated were cleaned out. I had some very thin-skined grapes sent me for trial, but with the same results as before—none were touched unless first punctured.

I suspended a cluster of grapes under a tree and poured sugar syrup on it; they took all of the syrup, but did not damage the cluster, until a wasp managed to bite three berries before I could kill it; those three the bees finished.

In conclusion, I must say that with the many different experiments covering a space of 5 years, being surrounded by bees and affording them every opportunity of doing damage, and failing to find them doing any, I think those who condemn the bees had better experiment for themselves and ascertain whether the bees do them any damage or not; they may come to the same conclusion, as the good people of Massachusetts, who years ago thought the bees were a damage to their fruit, and had them banished, but finding their fruit began to decrease, and of a poor quality, were only too glad to have the law repealed, and get the bees back again, when their fruit began to improve.

The field is broad; let all those who have their doubts carefully experiment for themselves. Do not jump at conclusions, and what is done, let the work be careful and thorough.

Dr. Southard grows a great many thin-skinned grapes, and had never known sound fruit to be injured, and damaged fruit he does not value.

Mr. Jones said he would give $15 if any one will show him a queen whose bees will puncture grape skins.

Mr. Balch said that no one can tell to whom trespassing bees belong, and if bees were banished from the State, the loss to horticulturists would be greater than the damage done by them.

Dr. Ashley recommended for bee-stings a solution of iodide or bromide of calcium.

Dr. Southwick then addressed the Convention, as follows:

A Few Mistakes of a Few Bee-Keepers.

It is a mistake to hold all rules in bee-keeping invariably correct; for rules in bee-keeping, like rules in spelling, have more exceptions than cases under the rule.

It is a mistake to take any man's opinion without experimental knowledge and his reasons for the same; for one good reason founded on experience is worth more than all the opinions in the universe.

It is a mistake to follow the ways, or adopt the hive of a successful bee-keeper without practical reasons for the same; for good locality, or some unknown cause, may produce the success in spite of his bad management and bad hive.

It is a mistake that bee-keepers ought not to take the benefit of the patent laws, as well as others, and thereby be enabled to get a royalty sufficient to pay them for their time and expense of getting up the improvement; if we could get up special donations, through special Providence, we might then dispense with the benefit of patent laws, but we are not all thus favored.

Concerning dysentery or the cause, one may say it is confinement, another bacteria or bee-bread, while I am satisfied, and by the postals I have received, I think some others are, too, that starvation will sometimes produce it. But it is a mistake to say that any one thing is the sole cause, for it is evident there are many causes, and frequently a variety of causes, for it is quite probable that with the bee, as with the human, anything that will change the action of the system so that instead of taking from the alimentary canal and furnishing the system nourishment, it takes from the system and throws into the canal, will produce dysentery.

Concerning frames and hives, Mr. A. I. Root would not use any but the Langstroth frame and hives to fit, while I would not use a frame that I had to hang in the hive, or a hive that I could not move the end-board together or apart, or take them out at pleasure, and thus increase or lessen the size as I saw fit; but it is a mistake for either of us to claim that ours is the *ne plus ultra* of all hives, for there may be many as good, and some far superior to ours,

It is a mistake to follow instinct instead of reason; instinct is the same old way—reason invents, compares and selects the best; instinct was as perfect a thousand years ago as to-day—reason will continue to improve, but will never perfect; instinct indicates straw and box hives, also fire and brimstone—reason indicates comfortable hives and handy frames, also justice and mercy.

It is a mistake that because a colony winters well in a hive that has a crack wide open from top to bottom, that all hives need that ventilation; for a strong young colony will winter, notwithstanding this unreasonable exposure.

It is a mistake to have a two-inch space above the frames for the heat and bees to get up into, when the heat and bees are required among the combs to keep them warm, so that the bees can get over them and feed when the weather is cold, and not freeze in the operation.

It is a mistake to get up a hobby of any kind, and then drive everything else off the track that it cannot load.

It is a mistake to accept all the theories of bee logic as infallible, such as fertilization of queens, and the like; for I had a queen when hatched lacked about half of one wing, yet in due time she became fertilized and filled the hive with bees.

It is a mistake to write long, windy articles for our bee-papers, that are noted only for their big words, fine turned sentences, and extreme length, and if they contain an idea, it is lost in a wilderness of words, and the reader takes the length of the article for the weight of argument, and concludes the writer has made a point.

It is a mistake that we meet here in convention only to see old friends and make new ones, to hear the different addresses and essays, make comments on them, ask and answer a few questions, and have a good time, when in addition we should have the experience of all the members on the different subjects of bee-keeping written out in a short, comprehensive style, without comment, and these, with the essays and lectures, and full proceedings of the Convention, printed in pamphlet form and distributed to the members, or sold to outsiders for enough to cover the cost of printing, then we would have a record that would be valuable to refer to afterwards.

It is a mistake to offer, and a much greater mistake to accept, a reward for breaking off the filthy use of tobacco; for a man that will not get up out of that miserable, soul-debasing, health-destroying, clothes-besmearing, breath-poluting, sense-benumbing, brain-befuddling, nerve-poisoning habit without a reward, but will for ever sink himself too low for any human society, and the whole looks to me like the proceedings of a protracted meeting I once heard of, where they offered a ten cent chromo to all that would come forward and get religion.

The Srecretay read the following from Mr. W. Z. Hutchinson, on

Rearing and Selling Queens.

Some apiarists have asserted that the so-called "dollar queens" could not be reared at a profit. I have been engaged in the business during the past four years, and have never cleared less than $15 per colony, the average profit for the four years being about $18 per colony. As I have been so successful, perhaps the members of the conventions would like to know how I have conducted the business.

I have learned that nothing is gained by commencing operations too early in the season. Colonies are weakened, brood is chilled, queens are two or three weeks old before they begin to lay, in fact, there are nothing but unpleasant features connected with commencing before the warm weather has really come to stay.

I think a small frame best for queen rearing. If it were not that I might sometime wish to give up the queen business, and go to raising extracted honey, I should adopt a frame not more than 10 inches square. I use the American frame.

For nucleus hives, I use full-sized hives, putting in division boards, and having a nucleus in each end of a hive. Usually about the 10th or 15th of May, I put a nice, clean, light-colored worker-comb in the center of the colony, having the queen from which I wish to breed. In 3 or 4 days I generally find this comb filled with eggs, and the first-laid eggs beginning to hatch into larvæ. I now remove the queen and all of the brood from some strong colony, shaking the bees from the brood combs back into the hive, and giving the brood to the weakest colonies. The queen is either sold, or given to a nucleus prepared expressly for that purpose. The comb of eggs and larvæ from the choice queen is now placed in the center of the queenless and "broodless" colony. I usually cut a few small holes in the comb, just where the eggs are beginning to hatch, as it gives the bees better opportunities for building queen cells. After removing the comb of eggs from the colony having the choice queen, its place is filled with another nice comb, or else a sheet of foundation. In 3 or 4 days this comb will be filled with eggs, and can be removed and given to another queenless colony, and its place again filled with a sheet of foundation. By the time that the sheet of foundation, last inserted, is drawn out and filled with eggs, the first lot of queen cells will be ready for the lamp nursery. I seldom allow a colony to build more than two lots of cells without giving it young bees. Two or three days before I expect the first lot of queens to hatch, I start as many nuclei as there are cells. Early in the season I seldom start more than one nucleus from each colony, and I do this by taking three combs with the adhering bees, and putting them in a nucleus hive. At least one comb should contain brood. As the weather becomes warmer, the strongest of these three-frame nuclei are divided.

I consider it important to always have on hand a large stock of queen cells, even if I occasionally have to destroy young queens. A breeder cannot rear "dollar" queens at a profit, if he allows some of his nuclei to stand queenless several days for lack of queen cells. When honey is coming in plentifully, I prefer to put a young queen upon the combs of a nucleus at the same time that I remove the laying queen, but when there is a scarcity of honey, this plan does not seem to work so well, as many of the young queens are killed by the bees.

One other point I also consider important, and that is that no nucleus should remain a single day without unsealed brood. Attention to this saves a world of trouble, and largely increases the profits.

But rearing queens is one thing, and selling them is another. A man may rear the best of queens, but unless he can sell them, his labor is lost. Remember that it is only by the strictest attention to business, that the rearing and selling of queens, at the present prices, can be made profitable, and, in my opinion, the selling is of as much importance as the rearing.

The breeder of untested queens ought always to have orders on hand, so that queens can be shipped the very day that they are ready, as, after a queen has filled the combs of a nucleus with eggs, she is kept only at a loss. "But," says one, "how can this state of affairs be brought about? we cannot compel people to send in orders whenever we need them." Very true; but did you never notice that there seems to be a peculiar something about some breeders, and the manner in which they advertise, that captivates the public heart at once? The orders come pouring in, and the trouble is not in finding customers, but in rearing queens fast enough to supply the demand. But, you say, all of us have not such a "taking way," or business tact. Certainly not; and for this reason, I would advise all those who think of entering the ranks as queen breeders, to not go into the business very heavily at first. It is better to spend $10 or $50 in discovering that rearing and selling queens is not your fort, than it is to spend five times that amount in acquiring the same knowledge. It is better to have more orders than queens, because the money can be more easily returned than purchasers can be found for surplus queens. And, by this way, if you wish for plenty of orders, then when a customer says, "Send my queen by return mail, or else return the money," do just exactly as he says; do not wait a week or two, thinking that you may be able to "squeeze out" a queen for him in a few days, and that it will be all right in the end. Were I that customer, it would be the last queen that you could sell me. Don't advertise until you have some queens on hand. Let your advertisement be plain and straightforward. If you must exaggerate, do it in filling orders. That is, do a little more for your customers than you have agreed to do. If you cannot fill an order at once, tell your customer at *once* why you cannot, and when you think you can fill it. If he does not wish to wait so long, he can order the money returned. Answer every inquiry promptly, kindly and plainly. After doing your very best, there may arise some trouble or misunderstanding. At such times, try and look at the matter from your customer's standpoint, as well as from your own, and practice the golden rule.

W. Z. HUTCHINSON.

Rogersville, Mich.

Mr. B. Walker had been successful in using a nursery for cells made in the top of a chaff hive, and kept warm by the bees.

Mr. Heddon then addressed the Convention on "Comb Foundation," as printed in last week's BEE JOURNAL, on page 395. .

Mr. Root believed that the Given press will supersede other machines.

Mr. Heddon uses strong lye for a lubricator.

EVENING SESSION.

The evening session was opened by Prof. Cook, with his address on "Crumbs Swept up from the National Convention."

Mr Jones believed that in many cases one-third of the crop of honey was lost by being eaten by drones.

Dr. Kellogg addressed the meeting on "Adulteration of Food and Honey." Honey is the first sweet known, and is composed partly of natural grape sugar, contains some pollen, and is stored by the bees with but little, if any alteration. The value of sugar as an article of food is very great; it assists in the production of heat and fat, but does not enter into the solids of the body. When starch is taken into the body, it is largely converted into sugar. Sugar is very digestible. The odoriferous qualities of honey are an important element in it; they are generally valuable, though sometimes injurious; such cases are generally due to an idiosyncrasy in the person. Cane sugar is the purest form of sugar. Honey is very valuable in some cases of sickness. If honey is adulterated with glucose, the fraud may be detected by the use of a warm solution of barium, which, if mixed with it, will cause a milky appearance. The honey should be thinned with water, which should be perfectly pure; if there is lime in it, the effect will be the same, although the honey may be pure. The speaker said that it had never been demonstrated that glucose contained any nourishment, and he believed that the opposite was the case. He thought its value for food should be determined by practical tests, rather than chemical analysis. Glucose is made by the action of sulphuric acid upon starch or woody fibre, and the acid is, of course, injurious, if not all extracted. He cited an instance where it had eaten the cork in a jug of golden drip syrup. Such action on the stomach is dangerous.

It was essentially innutritious and unwholesome. All the syrups now offered in the stores are adulterated with liquid glucose, and all the sugars except confectioners' A, with dry.

Mr. T. G. Newman then asked Dr. Kellogg to explain the difference between the articles known to commerce as glucose and grape sugar. He replied that there was no difference, except that the liquid was called glucose and the solid was named grape sugar, to distinguish them commercially. Both were manufactured from the same material and alike, with the single exception of the addition of other chemicals to solidify that designated as grape sugar.

Dr. Ashley had noticed many cases of sickness and stomach disturbances produced from this cause. Confectioners' A sugar is always pure, and any other that has coarse-crystals. It had been found that bees will starve on glucose.

A. I. Root thanked the Doctor for his able and instructive address. It had more than paid him for his trip from Ohio.

Dr. Southwick said he had visited the glucose factory in Buffalo, N. Y., and was told that they used from 8,000 to 10,000 bushels of corn per day, and were enlarging their works. A commercial traveler called on them to solicit advertising. They said "they did not advertise."

Mr. Heddon: The first I heard of glucose I thought it, perhaps, wôrse than others—so white, and as clear as water, very thick, and a dangerous article, as it could be so readily used in adulteration.

Prof. Cook: I am glad to hear the remarks of Dr. Kellogg. I teach, in the college, that the grape sugar of commerce and the grape sugar of honey are not the same. Our friend Mr. Root (and I don't believe he is to blame) has talked with the factories, and they call one grape sugar and the other glucose.

Nr. Newman: I admit that the phrase "Chicago honey" is a by-word. The jars are all adulterated, yet pure honey is sold there by hundreds of tons. Respecting adulteration, I have ever opposed it, and shall always continue so to do. Honey is but in its infancy. The demand will soon be such that all the bee-keepers of America cannot supply it. The fact is America has the flowers which make the best grades. In regard to the use of that trash, called glucose, for any purpose in the apiary, I would say, now and forever, "Taste not, touch not, handle not."

A. C. Balch. The odor of honey may be kept indefinitely, by putting it in cans and hermetically sealing it.

Mr. Heddon. Bee-keepers do not adulterate honey; it costs too much. It is a nice trick to adulterate it; the mixing is a trade by itself. We do not want jars for honey; they cost too much. Honey will sell in cheap paper or other packages.

Dr. Whiting. To liquefy honey set the jars on a board in the stove-oven, and let them heat slowly. The jars remain clean and the labels bright.

Prof. Cook hoped all our people would act and speak against adulteration all the time. Mr. Newman, of Chicago, and Mr. Muth, of Cincinnati, had done much to build up a fine staple trade in extracted honey.

Mr. Haikes. Let us form ourselves into a committee of the whole, and sell only pure honey.

Dr. Ashley. Medical men are finding new diseases of the stomach which they cannot explain. They are found especially among people using cheap sugars.

Prof. Cook offered the following:

Resolved, That we urge the editors and publishers of our bee papers to speak and act against the use of glucose or grape sugar, and the adulteration of honey. Adopted unanimously.

Mr. Newman made a few pleasant remarks, which were well received; he said Solomon's advice was right when he said: "My son, eat thou honey, for it is good."

A resolution of thanks to Dr. Kellogg for his address was adopted, with a requnst that he furnish a copy for publication. Adjourned.

FRIDAY MORNING SESSION.

The session opened with a discussion about bee-publications. The fact was brought out that they are considered necessary, and many of those present were willing to pay any price necessary for them. One gentleman had saved $20 by watching the market reports.

Mr. T. G. Newman gave an address on "The Future of the Honey Market." He said he had given the subject a great deal of thought, and believed the market, to be developed, should be kept constantly supplied. He thought that extracted honey is to become the staple for the masses, and that comb honey, being higher priced, would be used more by the rich, although it was but little, if any better. The market may be extended almost indefinitely, if properly managed. A few years ago the bee-keepers of California were producing more than could be sold at home, and the price became very low. By sending samples over the country, the demand became so great as to leave no honey for the use of the producers themselves. California honey is now in demand everywhere. A proper working-up of the market had accomplished this. He expected to see the time when honey would be sold at the door of apiaries, instead of going through the hands of dealers. He strongly advised every honey producer to develop his home market, and cited instances where great good had been done it. Our foreign market for honey is developing fast, and was destined to be very large. Wherever honey is introduced, it sells afterwards on its merits. Honey must be put in marketable shape, and this is rapidly growing to be the case. He thought that a bright future was very near.

When honey can be sold at the door of every apiary, it is a staple. Men will look the country over, buy the honey, and all will be sold and distributed. Honey is good to keep. It is not perishable. It can be transported to foreign markets.

Mr. Jones, Ontario, found that in Canada small packages sold best; sells best in tin cans; exhibited five sizes of cans, holding from 2 ounces to 5 lbs. The five cent packages sold the best at the fair at Toronto. The small cans brought in larger orders. He sold 15,000 lbs. at home and 30,000 at the fair. He said small packages were best; he used tin cans. Small packages prepare the way for large ones.

An essay was then read on

Something about Foul Brood.

Stock-breeders or fanciers of any kind desiring to meet with success must keep their eyes open at all times. One may be favored or injured by lucky or unfortunate circumstances, but success in every business is generally the result of intelligent management and prompt attention. In the same degree the reverse is caused by ignorance or inattention.

Nothing requires more the attention of bee-keepers than to guard against the spread of foul brood. Small is the trouble to cure a colony or two, if discovered in time, but the whole apiary is in danger, just as sure as a single colony is overlooked. If infested in the spring, every colony will, very likely, be diseased by the approach of winter, and no neighboring apiaries will be safe. In essays, on former occasions, I have spoken of the dangerous and insidious character of foul brood, and gave also simple and complete remedies. Interested parties will find records of the same in our bee papers of the present and past years, and save me unnecessary repetition. My object now is to admonish our friends to be watchful for their own sake and for our common welfare, and to show how easy, with a little care, great trouble and loss may be prevented.

You will remember my statement at the National Convention, at Lexington, Ky., of my having a few hives infested with the disease during last summer, and of their cure. I expected to have had foul brood rooted out once more in my apiary, and, no doubt, I was correct at the time; but perhaps an invisible little speck, a fungus, was hidden in the fissures of the table on which an infected hive had stood, or hidden somewhere on my bee-roof, until it was carried into the hive on the feet of a bee, and brought into contact with a larva. The colony had a number of combs with brood, only two of which contained a few cells with diseased larvæ. I exhibited the worst comb at our National Convention at Lexington, last fall, and very few of those present would have recognized as diseased a comb like it, if found in one of their hives. It was, nevertheless, the most dangerous kind of foul brood. On my return home I put the bees into a clean hive, on foundation, and fed them with honey and salicylic acid as described at the meeting. They had commenced nicely to build out their foundation, but it being late in the season, I exchanged them for combs well filled with capped honey about a week afterward.

On preparing my bees for winter, I discovered, in two more hives, one or two cells each containing larvæ diseased with foul brood. The combs of these three colonies, and all the combs that were in their hives during summer, will be rendered into wax, and my first care in early spring, when bees commence to breed, will be to place a jar of honey above them prepared with salicylic acid. Those few diseased cells would have done no harm this winter, but the trouble they would have given me by next summer can only be estimated by a person acquainted with the disease.

Larvæ dead from any cause will decay in the cells if not removed, diffuse the same stench, and will have about a uniform color and appearance, differing only according to their age; but if dead of foul brood, the skin decays about the same time with the body, which causes the ropishness of substance, and the inability of the bees to remove it from the cells. Larvæ dead from other causes may have decayed to a soft watery mass, but when a pin or some similar instrument is used, one can remove it easily, as the skin acts like a sack to the soft body.

I maintain the idea that foul brood is an imported disease, and spreads by infection, and not by chilling of brood or other surrounding circumstances indigenous to this country. I fear that this dread disease, now among us, cannot be rooted out any more. It may show itself at one place or another before we are aware of it; but by due vigilance it can be kept from spreading, and none of us can be too careful about it. CHAS. F. MUTH.

Cincinnati, O.

Mr. Jones had thoroughly tested salicylic acid and had found that it had no effect; he believed that nothing would kill it but heat. He thought it could be as easily managed as the bee moth. A discussion followed.

President Cook said that in many cases we must understand pure science in order to understand applied science, and thought that scientific investigation may throw light on the disease.

Mr. Townley. I have lost 60 to 70 colonies, and think a bonfire the quickest and cheapest cure. Total cremation.

Mr. Jones. No use in cremating.

Dr. Whiting. Have had foul brood, and caution bee-keepers not to take it to their hives; it will not do to handle it carelessly. Put the bees in a box 48 hours, then put them in another clean hive with comb foundation. I kept one hive, cleaning out combs, and hatching the bees that could hatch, and the bees made a large amount of surplus honey. I succeeded in curing my apiary.

Mr. Hubbard. Honey does not show foul brood, but needs to be boiled if fed to bees.

Dr. L. C. Whiting then addressed the Convention on

The Coming Bee Hive.

We hear a good deal about the coming bee, and but little of the coming hive, in which we can best secure the product of bee industry.

Permit me to call your attention to a reversible frame hive, which is being used by some of the best bee-keepers in the country. This hive has all the advantages of the Langstroth and Quinby hives combined, at the increased expense of only one cent a frame over the Langstroth. I will state as briefly as I can some of the advantages of this hive.

The frames stand on a shoulder at the bottom of the hive, and when properly made, the metal corners are the only places where the frames touch each other on the hive. If you wish to fasten the frames for safety in shipping, all you have to do is to slip in a couple of wedges and crowd the frames close together and all is firm and secure. As they touch only at the corners, there is no danger of the frames coming together and destroying the bees.

Whenever the bees store too much honey in the upper part of the comb, the frame should be turned over, placing the honey at the bottom, and the brood at the top. If you have selected the right time to reverse the frame, the bees will remove the honey to the boxes, and fill its place with brood. You have thus gained two important points—your honey in the boxes, and an additional amount of brood.

Some of the handsomest frames of brood that I have ever seen were obtained in this way. The important time to reverse the frame is just before the close of a good yield of honey. If deferred too long, the bees sometimes refuse to carry the honey to the boxes. When the combs are turned over, the bees make them equally secure at top and bottom, and all parts are toughened and strengthened by having brood reared in them, thus making a very desirable frame for extracting from. Those who use this hive, claim that they get from 10 to 15 pounds more honey in the boxes than is obtained by the usual method, and a large increase in brood.

There are other advantages claimed for this hive, but they do not appear to be so well founded as those mentioned. Mr. Van Deusen, of Sprout Brook, N. Y., is the originator of this frame, and I hope will give us more light on the subject through the BEE JOURNAL.

Mr. Harrington said that after 9 years' experience with alsike clover, he had found he could grow it on heavy land if it was well worked, and it is a very valuable bee-plant. It is a plant for both farmers and bee-keepers.

AFTERNOON SESSION.

The session was opened with the following resolution, which was adopted unanimously:

Resolved, That the executive committee be requested to procure 200 copies of the proceedings printed, and that a copy be sent to each member.

The following cities were voted upon for place of meeting next year: Grand Rapids, 20; Detroit, 21; Kalamazoo, 23. The latter place was chosen.

The following officers were elected for the following year: President, James Heddon; Vice Presidents, Prof. A. J. Cook and Dr. Southard; Secretary, T. F. Bingham; Treasurer, T. M. Cobb. The following gentlemen were appointed a committee to attend to the interests of apiarists at the next State Fair: H. D. Cutting, Prof. A. J. Cook, Dr. O. H. Ranney, A. B. Weed, James Heddon and Byron Walker. It was voted to request Messrs. Jones and Newman to attend the next meeting.

The following essay was read on

Extracted Honey.

I think that the best essay I can write, on the above subject, is to detail what we have done and what results we have obtained. Accustomed as we had been, in France, to see candied honey sold as a staple article, we could not understand why it could not be readily sold in this country, since it is a purer article than comb honey, not being any more mixed with beeswax, and since it can be sold cheaper, and shipped without any trouble. As soon as we heard of the discovery of Maj. Hruschka, the inventor of the honey extractor, we hastened to have a machine made and to use it.

But we soon found that, while to extract honey was easy, to sell it was the most difficult part of the job, the granulating of our honey hindering our sales. Several lots in glass jars were returned to us on account of its having become similar in appearance to lard of poor quality.

These difficulties did not deter us from our undertaking, which was rendered more difficult yet by articles published in the bee papers, in which the granulating of honey was considered as a defect, which the bee-keeper had to correct by boiling it. We had also to contend with the adulterators, who were quick in saying that the candying of our honey proved that it was made from sugar.

We then wrote, in the bee papers, that the granulating of honey was the best test of its purity. This statement, at first, met several denials, but as truth sooner or later prevails, our assertion was soon after indorsed by several societies of bee-keepers, and is now admitted as a positive fact.

After becoming disgusted with glass jars, in which candied honey does not look to the best advantage, we tried wooden pails; but their capacity was too large for retail. Then we used tin pails, like those in which the workmen carry their dinner. These pails, weighing 10 lbs. gross, were found too large yet, so we divided them in pails holding 5 lbs., 2½ lbs., and 1¼ lbs. gross. These pails are now manufactured in several States of the Union, where we sent samples for patterns. We were also led to have them manufactured for sale, and the increasing demand for them shows that the sale of extracted honey is now comparatively easy. Let me here advise you to adopt uniform sizes for these pails, as did Mr. A. H. Newman, who sells the same sizes that we do, even if you have a few cents more to pay per hundred to get the uniformity, for the uniform packing of an article tends to make a staple of it. The manufacturers of other articles sold in the groceries are careful not to vary the size; we had better imitate them in this respect.

As a result of our efforts, we now begin to foresee how large will be the use of extracted honey in this country. Our extracted honey is every year coming more and more into demand. We have ascertained that a city of 12,000 inhabitants, in which it was at first difficult to sell 500 lbs. of extracted honey, can consume now 5,000 lbs., yet as it is less than a pound yearly for every inhabitant, we can look for greater sales in the future. But to obtain such increase in the demand, we have to observe some precautions, which may be thus enumerated:

1. Do not put on the market unripe or dirty honey; have it well skimmed and strained.
2. Put it in clean tin pails, provided with neat labels, indicating your address and the weight, and warranting its purity, proclaiming also that granulation is the best test of its purity.
3. If you cannot sell your pails, put some of them in the best groceries of your neighboring towns, to be sold on commission, and to be returned if not sold or not found as represented.
4. Do not ask fancy prices. All our crop of this year, a little above 14,000 lbs., will net about 12 cents a pound, and we find that this price pays well.

If most bee-keepers would adopt our method, we predict that the honey crop of this country would be easily sold at home, even if it was ten times greater than it is now.

Hamilton, Ill. CHAS. DADANT.

Several members deprecated the use of the word "strained" as applied to honey, when "extracted" was meant. It was declared by many that when honey was stored in large quantities, the best of it was found to be at the bottom of the cask. Any particles of wax that there may be in the liquid honey may be caught by skimming or passing the honey through a piece of cheese-cloth.

Mr. Heddon has found that honey will ripen after being taken from the hive; he stores it in crocks. He said it is a great deal of trouble to the bee-keeper to liquefy honey on a large scale after it is candied, and advocated making a market for candied honey.

Mr. Balch said that honey would keep perfectly if kept in air-tight jars. He recommended honey and honey-candy for children, in preference to that for sale in the stores.

President Cook said honey may be extracted when green, if it is kept in a warm, dry place, where it will ripen. Mr. Muth's opinion was the same.

Mr. Bingham showed a comb containing capped honey, most of which had evaporated by reason of the warmth of the hive.

Dr. Ranney had found that extracted honey would lose nothing if well ripened, and that thick honey would absorb moisture. Some kinds of honey will candy much more quickly than others. This honey will candy before that which is thick.

Mr. Bingham insisted that honey should be well ripened before being put upon the market. He thought that green honey would injure tho market.

Mr. A. I Root addressed the Convention on "Selling Bees by the Pound." He said that it was a comparatively new industry, and they are shipped even long distances. A person could commence the business of keeping bees on a very small scale. He had known a half pound of bees and a good queen to make a good colony by fall, and yielded some honey; they were provided with combs. When whole colonies are sent by express, the frames should be wired, and the expense of carriage was burdensome. He can ship bees cheaper and more safely in a small wire cage than when in the hive. They were provided with water for drink and sugar for food; this is better than honey. The best way to introduce queens was to buy a few bees with her and turn them all loose on a few frames of hatching bees and honey. He had seen two pounds of bees and two queens in the spring make 4 good colonies by fall. They had had good care. The manner of putting the bees in the traveling cage, is to put the cage on scales and insert the small end of a large tin funnel; the bees are then shaken into the large end. The queen is put in last. Mr. Jones considered bees worth as much as $4 a pound before the harvest, and 50 cents after.

[Concluded next week.]

* * *

Local Convention Directory.

1882. *Time and Place of Meeting.*

Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
10—Eastern N. Y., at Central Bridge, N. Y.
N. D. West, Sec., Middleburgh, N. Y.
11, 12—Nebraska State, at Ashland, Neb.
Geo. M. Hawley, Sec., Lincoln, Neb.
17, 18—N. W. Ill. & S. W. Wis., at Freeport, Ill.
Jonathan Stewart, Sec., Rock City, Ill.
17, 18—N. E. Wisconsin, at Berlin, Wis.
T. E. Turner, Sec. pro tem.
24, 25—Indiana State, at Indianapolis, Ind.
25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
25—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
26, 27—Western Michigan, at Grand Rapids.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
May — —Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.
25—Iowa Central, at Winterset, Iowa.
Henry Wallace, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

* * *

To the Bee-Keepers of Indiana.—At the last meeting of the State Bee-Keepers' Association, the Society was changed to a delegate organization, and one Vice President was appointed for each county of the State, whose duty should be to organize the various counties into auxiliary County Associations. I would, therefore, request all persons interested in scientific bee-culture, to unite in their respective counties and organize themselves into auxiliary County Associations, subject to the State Association. Each member of the County Association by paying to the Secretary of his County Association 50 cents, becomes a member of the State Association, and is entitled to the printed transactions of the proceedings of the State Association, thereby getting a full return for all money invested. Each County Association will be entitled to one delegate for every five members, and one for every additional fraction of more than half of this number. Copies of the constitution and by-laws of the State Association, together with any other information in connection with the organization can be had on application to the Secretary, Frank L. Dougherty, at Indianapolis. The Association will meet at Indianapolis, Jan. 24 and 25. A full delegation and a good meeting is expected.

JAS. H. OREAR, *Pres.*

* * *

☞ The annual meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held in Temperance Hall, Freeport, Stephenson Co., Ill., on Jan. 17 and 18, 1882.

JONATHAN STEWART, *Sec.*

* * *

☞ The Indiana State Bee-Keepers' Association is called to meet in annual session, Wednesday and Thursday, Jan. 24 and 25, 1882, in the rooms of the State Board of Agriculture. By order of EXECUTIVE COMMITTEE.

Special Notices.

☞ Single copies of the JOURNAL sent postage paid for 5 cents each.

* * *

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

* * *

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

* * *

☞ Articles for publication must be written on a separate piece of paper from items of business.

* * *

Photographs of prominent Apiarists —Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

* * *

☞ When changing a postoffice address, mention the *old* as well as the new address.

* * *

☞ Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

* * *

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

* * *

The Color and Lustre of Youth are restored to faded or gray hair by the use of Parker's Hair Balsam, a harmless dressing highly esteemed for its perfume and purity. 49w4

* * *

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

* * *

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. *Always* send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

* * *

Rheumatism is the most terrible disease that has ever afflicted humanity, yet it instantly yields to the powerful drugs that Kendall's Spavin Cure is composed of.

* * *

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

* * *

☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

* * *

It is Worth Remembering that nobody enjoys the nicest surroundings if in bad health. There are miserable people about to-day with one foot in the grave, when a bottle of Parker's Ginger Tonic would do them more good than all the doctors and medicines they have ever tried. See adv. 49w4

* * *

☞ We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied *free*, in any quantity they may be able to judiciously use.

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums. Their own subscription may count in the club:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Apiary Register for 50 Colonies, or Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year, or Apiary Register for 200 Col's.

Or they may deduct 10 per cent in cash for their labor in getting up the club.

* * *

Binders for 1882.—We have had a lot of Emerson binders made especially for the BEE JOURNAL for 1882. They are lettered in gold on the back, and make a nice and convenient way to preserve the JOURNAL as fast as received. They will be sent post paid by mail for 75 cents. To all who send during this month (December) for the JOURNAL and binder for 1882, we will send both for $2.50. We do this to encourage all to get the binder and preserve the BEE JOURNAL for reference, and to save us the expense of removing the name from our type mailing machine, and then resetting it in January or February.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL,
Monday, 10 a. m., Dec. 19, 1881.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. We quote light comb honey, in single comb boxes, 18@22c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@22c.

AL. H. NEWMAN, 972 W. Madison St.

NEW YORK.

HONEY—The supply is full, and trade is lively. We quote as follows: White comb, in small boxes, 18@22c; dark, in small boxes, 15@17c. Extracted, white, 10@11c.; dark, 7@9c.

BEESWAX.—Prime quality, 21½@23c.

THORN & CO., 11 and 13 Devoe avenue.

CINCINNATI.

HONEY—Is in good demand here now.

I quote: Good comb honey, in sections, is worth 18@20c., on arrival. Extracted, 7@9c. on arrival.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

BOSTON.

HONEY.—1-pound combs are a desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 21@ 22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX — Best light 23@25c.—*Philadelphia Merchants' Guide.*

SAN FRANCISCO.

HONEY—A thousand cases, small size, went forward this week by sailing vessel for Liverpool, shipped by a packing firm in this city. The southern coast steamer this week brought 200 cases. Receipts for December to date aggregate nearly 1,000 cases. Inquiry is light.

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 8¾@10c.; dark and candied, 7@8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.

CLEVELAND.

HONEY—Comb honey has been a little dull for a week, but prices are unchanged. We sell best white 1 lb. sections at 22c.; 2d best, 20c., and dark 18c; 2 lb. sections, 17@20c. Extracted, 12c. in small packages; 11c. in half bbls.

BEESWAX—22@25c.

A. C. KENDEL, 115 Ontario Street.

ST. LOUIS.

HONEY—Plentiful and slow for all save bright comb—this sells readily; comb at 18@22c.; strained and extracted 9@11c. to 12½c.—top rates for choice bright in prime packages.

BEESWAX—Selling lightly at 19@20c.

R. C. GREER & CO., 117 N. Main Street.

CLUBBING LIST FOR 1882.

We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1882, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage is prepaid by the publishers.

	Publishers' Price.	*Club.*
The Weekly BeeJournal (T.G.Newman)	$2 00..	
and Gleanings in Bee-Culture (A.I.Root)	3 00..	2 75
Bee-Keepers' Magazine (A.J.King)	3 00..	2 60
Bee-Keepers' Instructor (W.Thomas)	2 50..	2 35
The 4 above-named papers	4 50..	4 00
Bee-Keepers' Exchange (J.H.Nellis)	3 00..	2 75
Bee-Keepers' Guide (A.G.Hill)	2 50..	2 35
Kansas Bee-Keeper	2 60..	2 40
The 7 above-named papers	6 30..	5 50
Prof. Cook's Manual (bound in cloth)	3 25..	3 00
Bees and Honey, (T. G. Newman)	2 40..	2 25
Binder for Weekly, 1881	2 85..	2 75
Binder for Weekly for 1882	2 75..	2 50

Advertisements.

THE AMERICAN BEE JOURNAL is the oldest Bee Paper in America, and has a large circulation in every State, Territory and Province, among farmers, mechanics, professional and business men, and is, therefore, the best advertising medium.

SEEDS FOR
Honey Plants.

I keep at all times a full supply of Seeds for Honey Plants, including

Golden Honey Plant.
Melilot Clover,
White Clover.
Alsike Clover,
Mammoth Mignonette, &c.

Send for my catalogue which gives prices and instructions for planting—sent free upon application.

ALFRED H. NEWMAN,
972 West Madison St., CHICAGO, ILL.

ELECTROTYPES

Of Engravings used in the Bee Journal for sale at 25 cents per square inch—no single cut sold for less than 50c. THOMAS G. NEWMAN,
974 West Madison Street, Chicago, Ill.

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VOLUME FOR 1880,
Bound in paper covers. A few copies for sale at
$1.00, postpaid to any address.
THOMAS G. NEWMAN,
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COMB FOUNDATION,

high side-walls, 4 to 16 square feet to the pound. Circular and samples free.
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Sole Manufacturers,
Sprout Brook, Mont. Co., N. Y.

ALL ABOUT KANSAS.

THE WEEKLY CAPITAL is an EIGHT-PAGE, 48 COLUMN paper, published at Topeka, Kansas, giving Full and Reliable State News, Crop and Weather Reports from every County. $1.00 per year. Sample Copy Free. 44w8tx

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Devoted entirely to the best interests of the farm and household; **20** Pages with a handsome cover, trimmed and stitched in book form. All for ONLY 50 CENTS a year. We club with all principal papers and magazines in the United States and Canada. Send for clubbing circular, premium list and specimen copies, Free. AGENTS WANTED. Address, The AGRICULTURIST, Rochester, N.Y. 47w5t

THE KANSAS BEE-KEEPER,

Devoted entirely to the best interests of those who keep bees. The question department, conducted by Dr. Wm. R. Howard, is of especial interest to beginners in bee-culture. Jas. Heddon will write a practical article for every number for 1882; 20 pages handsomely gotten up in book form. Every number worth the price of a year's subscription. Sample copies and premium list free to any address. Agents wanted. Address,
SCOVELL & ANDERSON,
28wtf Columbus, Kansas.

The Bee-Keeper's Guide;
OR,
MANUAL OF THE APIARY,
By A. J. COOK,
Of Lansing, Professor of Entomology in the
State Agricultural College of Michigan.

320 Pages; 133 Fine Illustrations.

This is a new edition of Prof. Cook's Manual of the Apiary, enlarged and elegantly illustrated. The first edition of 3,000 copies was exhausted in about 18 months — a sale unprecedented in the annals of bee-culture. This new work has been produced with great care, patient study and persistent research. It comprises a full delineation of the anatomy and physiology of the honey bee, illustrated with many costly wood engravings — the products of the Honey Bee; the races of bees; full descriptions of honey-producing plants, trees, shrubs, etc., splendidly illustrated—and last, though not least, detailed instructions for the various manipulations necessary in the apiary.

This work is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. It is fully "up with the times" on every conceivable subject that can interest the apiarist. It is not only instructive, but intensely interesting and thoroughly practical.

Read the following opinions of the Book;

All agree that it is the work of a master and of real value.—*L'Apiculture*, Paris.

I think Cook's Manual is the best of our American works.—LEWIS T. COLBY.

It appears to have cut the ground from under future book-makers.—*British Bee Journal.*

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It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat*, Pulaski, N. Y.

We have perused with great pleasure this *vade mecum* of the bee-keeper. It is replete with the best information on everything belonging to apiculture. To all taking an interest in this subject, we say, obtain this valuable work, read it carefully and practice as advised.—*Agriculturist*, Quebec.

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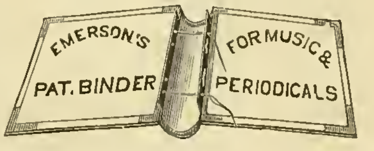

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☞ We are sometimes asked who our authorized agents are? Every subscriber is such an agent; we have no others, and greatly desire that each one would at least send in one new subscriber with his own renewal for 1882. The next few weeks are the time to do this. We hope every subscriber will do his or her best to double our list for 1882.

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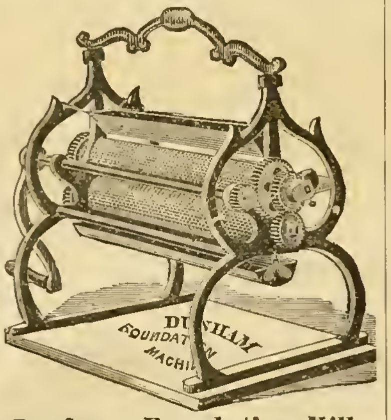

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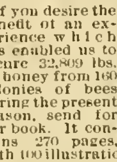

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51w3t

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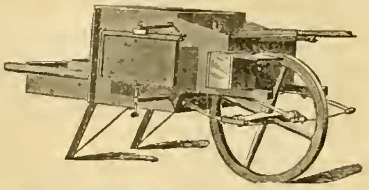
51w1t Clarksville, Albany Co., N. Y.



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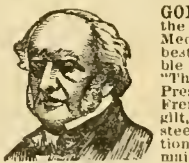

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VOL. XVII. CHICAGO, ILL., DECEMBER 28, 1881. No. 52.

THE AMERICAN BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR,
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This Number ends Volume XVII.

This number of the AMERICAN BEE JOURNAL closes the volume for 1881—the first year of the Weekly. The enthusiasm caused by its weekly visits is even greater than our most sanguine expectations, and it is exceedingly gratifying to know tbat our efforts to make an acceptable Weekly paper are so universally appreciated. To all we return thanks for generous encouragement.

It is hardly necessary to say that, for the coming year, we shall devote all our energy, determined to make the JOURNAL even more interesting and instructive than it has heretofore been, if that is within the range of possibilities. Its record, character, power and usefulness, in the past, will be its guarantee for the future, ever keeping in view the one grand object of its existence, that of furthering the interests of honey producers, by losing no opportunity to create a demand for this God-given product, opening up new avenues for its use, creating new demands and eager purchasers, both at home and abroad—thus benefiting every honey producer.

In short, the Weekly BEE JOURNAL will continue to be the medium of the best thoughts of the most advanced apiarists of tbis age. It will keep abreast of the highest progress, favor the freest discussion, and, by every means in its power, advance progressive bee-culture.

With this issue several thousand subscriptions expire, and as we do not wish to lose any of them, we earnestly invite ALL to promptly renew, and thus save the unnecessary trouble of taking the names from our mail list, and having to replace them again in a few days. Promptness in this will save us much valuable time and perplexity.

Once in a while we receive a rather uncourteous letter because the BEE JOURNAL is discontinued when the time is out that has been paid for. We try to please all our subscribers, but it is not an easy task for us to determine who does and who does not want it so continued; so we must ask to be informed on the subject.

Now, if all who desire it continued would drop us a postal card, or mention it when they are sending a remittance, it would save us much trouble and themselves the annoyance of having the JOURNAL stopped.

As this is the last article for the year, we commence at one the labors of the new year, stopping but a moment to wish all our readers

A HAPPY NEW YEAR.

* * *

☞ Christmas has come and gone, with its good cheer, joyous smiles and happiness generally. On Christmas eve, the editor received a small box with the following letter from Mr. W. H. Smith, of Burlington, Iowa:

> I send you by express, charges prepaid, a Christmas present consisting of 2 jars of the nicest honey you ever ate, in my opinion; if you find it so, please report. It is made from willow bloom, and was taken from the second story of the hive last July. It has crystalized and has been again liquified.
>
> Your request for bee and honey report was too early in the season for me. Our bees were gathering honey at that time, and ⅔ of it was yet on the hive. We were very successful with our bees last winter, losing a few late in March and April; some starved and some were queenless, making 8 in all, leaving 42, I believe, to commence the season with. From these we obtained nearly 2,000 lbs. of honey; about 600 lbs. being extracted, the balance comb. We increased by natural swarming to 85 colonies; in the meantime we Italianized 18 colonies. Our honey is put up in the most approved plan, and sells more readily than others at fair prices.

The honey was exquisite; and we have no doubt that it is even *superior* to the honey from Mount Hymettus, of which the ancient Grecian Sages wrote—calling it "food for the gods." At least, the honey we have eaten, gathered from thyme on that historically celebrated mountain, did not suit our palate as well. Mr. Smith has our thanks for the honey, and especially for the kind thoughtfulness which prompted him to remember us at Christmas time.

* * *

The Apiary Register will be ready to send out early in January.

It devotes 2 pages to each colony, embracing between twenty and thirty headings, neatly ruled and printed, with space at bottom for remarks, and so arranged that a single glance will give a complete history of the colony. Each book will also contain printed rules for the apiary, and twelve pages ruled and printed for an apiary cash account. As each book is intended for a several years' record, it is gotten up on first class paper, and strongly bound in full leather covers. There will be three sizes, sent postpaid, at the following prices:

For 50 colonies (120 pages)......	$1 00
" 100 colonies (220 pages)......	1 50
" 200 colonies (420 pages)......	2 00

The larger ones can be used for a few colonies, give room for an increase of nnmbers, and still keep the record all together in one book, and are therefore the most desirable ones to procure at the start. We have added these to our new Premium List for getting up Clubs for the BEE JOURNAL, as will be seen on page 407.

Send in your orders at once, and the books will be forwarded as soon as completed.

* * *

Time Now to Mature Plans for Next Season.—The *Indiana Farmer* gives the following good advise:

> A few colonies of bees, if well managed, will, one season with another, afford sufficient honey for any ordinary sized family, besides a surplus for sale. Now while your bees are resting is the time to study up, and mature plans for the next season's work. Good books fully up to the times are within the reach of all. Read upon the subject to be able to avoid the many mistakes made by those who have gone before. For one of the very first requisites toward successful bee-keeping, is a knowledge of the nature and temperment of the bees, and the means by which they are to be governed.

* * *

☞ The BEE JOURNAL of next year will be stitched, the edges trimmed, and each number will have 16 pages.

How to get the Weekly Bee Journal free of cost for 1882.—Until further notice, any subscriber who desires to obtain a good book on apiculture, can have either Cook's Manual, Quinby's New Bee-Keeping, or Novice's A B C, bound in cloth, postpaid, and the Weekly BEE JOURNAL for one year, for $3.00; or with King's Text-Book, or Blessed Bees (a romance), bound in cloth, for $2.75. The JOURNAL and all five books for $6.00. This is a rare chance to get a good library on bee-keeping. A person can sell the books for their published price, $6.00, and get the Weekly BEE JOURNAL *free* for his trouble.

Those having already paid for tbe Weekly BEE JOURNAL for 1882 may send for the books alone and deduct the $2 already sent for the JOURNAL.

* * *

Errata.—On page 397, first column, the last 6 lines of the first paragraph after Mr. Sayles' name, should have been credited to John Hodgson. As it is, it misrepresents Mr. Sayles' views, and was an error of the printer.

* * *

☞ Concerning Ozone, the *Sunday School Times* remarks as follows:

> The advertisement of "Ozone," which has for a few weeks appeared in our advertising columns, was not admitted until after satisfactory correspondence concerning it with gentlemen in prominent official position in Cincinnati, to whom tbe advertisers referred. Those gentlemen certified favorably, to the Publisher, concerning the preserving qualities of Ozone, and the good standing of those advertising it.

The BEE JOURNAL twice refused the advertisement, but being *assured* of the good standing of the Company, as well as of the good qualities of the article, we inserted it a few times, as have some of the best papers in America.

Prof. A. B. Prescott, of the Ann Arbor University, has analyzed the compound and declares that it is not ozone at all, but powdered charcoal and sulphur, witb a little cinnamon in it, to give it a pleasant odor while burning.

We give this testimony in justice to our patrons, and advise *caution*, though the Prentiss Co. threaten to prosecute any one who may interfere with their business.

* * *

☞ The *Kansas Bee-Keeper*, published by Scovell & Anderson, is to be enlarged to a 20-page pamphlet in 1882, and the price raised to 60 cents a year. See our new clubbing rates with it, in another column.

CONVENTION NOTES

Michigan State Convention.

The 16th annual meeting of the Michigan State Bee-Keepers' Society, was held at Battle Creek, Mich., on Dec. 8, 9, 1881. Pres. Prof. A. J. Cook in the chair.

[Concluded from last week.]

The first evening session opened by Prof. Cook, with his address on "Crumbs Swept up from the National Convention," as follows:

President's Address.

Gentlemen of the Michigan Bee-Keepers' Association: When, late last September, your wide-awake Secretary wrote to me that he thought that he could not possibly attend the National Convention, then soon to meet at Lexington, Ky., and urged that Michigan ought to be represented at that important gathering, I supposed that my duties at the College would utterly preclude my attending that meeting. But the thought that the State that supports the most prosperous society of any State in the Union; that has more district societies than any other State, and, as I am informed by the editor, gives the largest patronage to one of the most influential bee papers of our country; the thought, I say, that this State should have no representative at our National gathering, seemed to me so incongruous with our position and influence, that I commenced at once to make a great effort to comply with your Secretary's very urgent request to represent this Society as a delegate. Had that gentleman with prophetic vision told me of the great responsities that my course was to heap upon these already over-burdened shoulders—as the presidential honors, so unsought and so unmerited, would hardly have come to me in my absence—the desire even that our State should not go unrepresented, would not have sufficed to secure my attendance at the very interesting meetings of our National Association.

But it now behooves me to see to it that the rich feast of wisdom spread out before us on that occasion be not lost to my friends and brothers of this, our goodly Michigan, and so I have resolved to dish up of the best that was offered there for your edification to-day.

Our enterprising friend Jones showed us the value of perforated zinc, and told us how it could be used to restrain swarming at undesirable times, to prevent drones from undesirable colonies flying forth to mate with our young queens, or better, to catch and destroy these useless gormandizers of the hive, and thus save a large amount of honey which would otherwise be consumed. In all of these cases the perforated zinc is used as an entrance sieve, which, while it will permit the workers to pass freely, is an entire estoppel to the queen and drones. Its peculiar shape prevents it from becoming a check to the ingress and egress of the workers when it is used to fence out the drones. The drones are not able to clog the entrance.

Mr. Jones also uses the perforated zinc as a division board during the honey harvest, as he thinks, with exceeding advantage. The queen is kept at the side or end of the hive next to the entrance, on 4 or 5 frames of empty combs, which are re-placed by other empty combs as the queen fills them with eggs. Next back of these comes the perforated division board, which keeps the queen from visiting the other frames. Then comes frames of sections, or, if preferred, frames for extracting, or both, and last the frames of brood in all stages in the combs that have been removed from the queen. As these latter are emptied by the hatching bees emerging from the cellar, they are given again to the queen, after any honey that may have been stored in them may have been removed. Mr. Jones claims that this keeps the swarming fever in check, prevents all breeding in the sections, and adds vastly to the amount of surplus which may be secured.

Mr. Jones proved this last season that it was easy to ship drones, if we send the brood just before the drones were to come forth from the cells. He suggested that we grade up our bees by procuring and using superior drones. All other drones can be weeded out or kept from flying by use of the zinc entrances already referred to. If the males are prepotent among higher animals, and such stock improved most rapidly by the selecting of superior sires, why may not the same be true among our bees? Surely this is a suggestion worthy of consideration.

It has long been known that bumble bees when they mate fall to the ground where the male remains a corpse, while the queen goes forth to her life's work. The similarity of our honey bees to the bumble bees, together with the quick death of the drones when emission takes place from the warmth of the hand, makes it more than probable that the drone honey bee expires in the sexual act. Mr. Jones has seen unwelcome proof of this during the past summer in his experience at his island apiaries. He finds that on small islands there are a very large number of queens lost in mating, and that the number is in inverse proportion to the size of the island. Of course if the queen and drone fall into the water, the queen would be unable to rise, and so would be lost.

Mr. Della Torre, of Maryland, exhibited a very large queen cell, the queen from which he claimed was the result of the artificial impregnation by him of a drone egg, by the semen of a drone bumble bee. Granting that there is no mistake in this matter, it is an exceedingly interesting observation. It is not, however, the first case of such extreme cross—a cross between different generations has been reported. This report of Mr. Della Torre suggests an interesting experiment that we can all try, and if we succeed, we may have some hope of important results.

There was only one new feature developed in reference to wintering. That was from Mr. O. O. Poppleton, to the effect that fine clover chaff, or better still, fine, dry sawdust, was far superior for packing, to any coarser material. It seems reasonable that for chaff hives, or for packing, this fine material with its finer spaces, would offer better protection.

The "new bees" were freely commented upon. Every one who had personal experience with them, pronounced them superior to the Italians. All reported that they were more irritable than were the Italians, but all said that with care, they could be handled with no difficulty. The Syrians seemed to be voted superior by those that had tried them both, the Syrians and the Cyprians.

In this connection, let me speak of a new use of the smoker that was suggested by Mr. Jones. He turns a little chloroform into a sponge which he then drops into a smoker, and quickly covers with a second sponge. The smoker is then used in the same way that we would use it to smoke the bees. The vapor effectually quiets the bees, even though they be queenless colonies of Cyprians. Mr. Jones thinks that with chloroform used in this way, we may introduce queens at once and always with the utmost safety. He also makes a similar remark in reference to uniting colonies.

I wish especially to call your attention to a very neat arrangement for holding sections, which was exhibited by Mr. C. H. Deane, of Mortonsville, Ky. It consists simply of a common section frame, strongly made, to hold only one row of sections, and is without top bar. These may hang two or three deep supported in a similar shaped piece of hoop iron, which hooks on to the metal rabbet of the hive, in the main body of the hive, or they may be readily raised and placed in a crate above the hive. In this crate they may be either one, two, or three deep. The advantage of this arrangement consists in the facility with which the sections may be transferred from the body of the hive to the crate above and *vice versa*, and the ease with which the sections may be removed as soon as they are filled and capped.

I was much surprised, and no less gratified, as I listened to the reports of those in attendance at the Convention, to find what a large proportion of the apiarists of the country are raising principally extracted honey. Three-fourths and more of the honey crop of those present was extracted honey. I might speak of many more valuable points that were brought out at the Convention, but after the many vehement protests against long and numerous essays at these meetings which have appeared in the bee journals of late, it would show no little temerity on my part to dwell longer on the subject.

Before closing however, let me call your attention to a few matters which are, I think, well worthy of your careful consideration. First in fixing the place of the meetings, let us not fail to get them as central as possible, and where we are invited to go, so we may have an able local committee, who will spare no pains in making arrangements and arousing a local interest. Much of the success of this meeting is due to our having acted on this suggestion one year ago. You see in the success of the foul brood bill and the adulteration bill before the last legislature, what we may hope to do if we really make an effort.

Shall we not, this coming year, strive to secure the organization of still more local or district associations? These organizations tend powerfully to advance the interests of apiculture. All should send delegates to this society, and we in turn to the National Association, that we may all pull together to promote the best interests of our art.

Above all, I would suggest as the best work that we can do that we send a committee to petition the State Agricultural Society, to give us a building at the next State Fair, and offer sufficient premiums to call out a grand exhibition next fall. Let us ask for the privilege of selling honey on the ground, and then see to it that there is an exhibition that shall be the remark of all who see it, long after they go to their homes. In this way we may create an interest, and build up a market, that shall prove a powerful stimulus to the bee-keeping interests of our State. Let us see to it that our friends in Illinois, and our neighbors across the line, do not eclipse us in this important work.

The Secretary read the following letter from Mr. J. J. Robinson:

I notice that Mr. Cutting is to speak on the subject of "Bees and Grapes." I keep bees and cultivate grapes. Some of my neighbors have grapes, but no bees. They, or some of them threaten to prosecute me if I keep bees another season. I admit that bees are, to some extent, an annoyance to fruit growers in some seasons. I would be willing to pay something as compensation for the annoyance, but cannot, of course, pay exhorbitant damages.

I started last spring with 5 colonies. One party claims $50 damages on account of my bees injuring his grapes. Grapes sold at 3 cts. per lb. He has but a small portion of the grapes in the community, and I, but a small portion of the bees in the neighborhood. Is there any law on the subject?

He claims that bees tear open grapes and berries. My grapes are closer to my bees than his. I think the bees are after bursted fruit. I find them only on such fruit as by some chance has been ruptured. Has there been any such cases tested by law? If so, when, where and how were they decided? If I am violating law by keeping bees, I would be glad to know it, and the sooner the better. I shall look with interest for what may be said or done by the Convention, regretting much my absence.

My bees did well until clover was gone; after that they obtained but little honey. Buckwheat yielded but little honey. The button-ball, so abundant here, did not blossom much this year. I shall put my bees in boxes on the summer stands arranged so there will be an open way clear through under the hive from both sides. I want no upward draft, but plenty of fresh air—not necessarily cold air. I like to have the honey as much as possible above the cluster of bees.

Mr. Cutting: Will he prosecute the woods' bees?

Mr. Cole said he had 18 acres of grapes, and knows that bees do not injure them.

Mr. Balch said bees are wild, and liable to be killed if they stray. A tame coon if he gets loose may be killed with impunity.

Mr. Heddon: If bees injure grapes, why not move the grapes?

Mr. Harrington recommended alsike clover for bee pasturage.

Mr. Haike said the seed remained in the ground for years; ½ bushel sows about 6 acres; it remained in bloom about 8 weeks. He thinks he obtained 2 barrels of nice honey from it. Then cut it with a reaper for seed, which netted him $80.00. It is the best of honey plants. It may be cut twice, and I can get a crop of honey after basswood by having two fields; mow in May, and it will bloom in 6 weeks after mowing. It may be sown alone, or with half timothy, 4 lbs. to the acre.

Mr. Southwick: It grows well on clay; will bloom only once. It won't do much on sandy soil, but will stand as much water as red-top; it will grow 4 feet high.

Mr. Townley corroborated these statements and said it would grow anywhere, and made good hay, 2 tons to the acre.

The President said it was an open question whether queens laid worker eggs that had imperfect wings. He wished those who had such queens would rise up and state conditions. He had probably sacrificed a hundred queens in the effort to sum worker eggs from a queen having clipped wings, and had invariably failed. Seven stood up.

T. F. Bingham said two such had come under his personal knowledge; one he raised himself had no wings, but laid worker eggs when of the usual laying age. The other was sold to him with a colony of bees by R. M. Argo. She remained in the same colony two winters, and was a perfect queen in all respects except she was entirely wingless. He said such facts were as well established aa that two queens sometime are found laying in the same hive at the same time, and of that there was not a shadow of doubt.

D. A. Jones said he had had three laying at one time in one hive.

The following is the report of the committee on resolutions: *Resolved*, That while we realize that this meeting is a great success, we would acknowledge our obligations to those who have aided us to make it so. We would tender our thanks to the railroad companies which gave reduced fares; to the Southern Michigan Bee-Keepers' Association for use of room; to Mr. Larken for comfortable accommodations at reduced rates, and to Mr. B. Salisbury for his arrangements for our convenience. That we also thank those gentlemen outside of our State who have contributed to the interest of our meeting by addresses and exhibitions, among them Messrs. Jones, Newman, Root, Poppleton and Dr. Kellogg.

EVENING SESSION.

Meeting called to order by James Heddon, the newly elected President, who, in a few well chosen remarks, thanked the Association for the honor conferred upon him, and hoped by their assistance, to faithfully discharge the duties that may devolve upon him. He then announced the next subject for consideration, which was "Wintering of Bees."

O. O. Poppleton, Williamstown, Iowa. stated that about 6 years ago he adopted his present plan of wintering. He believed that this is one of the most important questions with which bee-keepers have to do. He thought there were many elements which enter into success. His remarks were applicable to Iowa, and might not be to Michigan. His summer crop is apt to be light, but his fall crop is generally good. He uses a single story, long, chaff hive, and keeps all combs covered with bees. He extracts thoroughly when at all, but not after Aug. 10. He found the late honey the best for winter food. The colonies from which he extracted from the brood frames wintered the best. When the season is over, he takes out all surplus combs and crowds the bees on as few frames as possible. He destroys his poorest queens in the fall, and gives the bees to other colonies, and was not quite sure that young bees winter the best. Winter passages are important, and he packs as early as Oct. 1, and gives ventilation above. Uses very fine Timothy chaff; straw is too coarse. The packing should be left on until late in the spring. Honey ripens more rapidly in the brood nest than any where else in the hive; he pays no attention to pollen. Success in bee-keeping depends upon attention to many details.

The President preferred to have his bees stop breeding early in the fall, and begin late in the spring, because then no pollen would be used when the bees could not fly. He had seen colonies which had been wintered on white sugar syrup; they showed no disposition to fly after a long confinement, when others that had had pollen during the time, were eager to escape from the hive.

Prof. Cook was sure that pollen was necessary to breeding bees. and does not care to have his bees breed before April, and keeps pollen from them during the winter. Any activity during winter is very injurious to bees, and they should be kept as quiet as possible. He winters in a cellar.

Dr. Southard: I use the same kind of hive and use cushions. The air can circulate over them.

Prof. Cook: The Cyprians should be packed early, before they are through gathering honey.

Pres. Heddon said one of his neighbors wintered his bees well by removing the center combs and left the fall honey. This plan removed the pollen that the bees store in the center in the fall.

B. Walker mentioned a colony from which he extracted all the early honey intending to feed, but over-looked them. They had lots of pollen, but died without disease, while others with lots of honey had disease.

Pres. Heddon: Pure sugar syrup renders bees comfortable.

Dr. Southwick's died from dysentery and starved also.

Prof. Cook said they analized sugar and fed it in empty frames. They stored the combs having pollen. The bees started breeding but soon stopped. He felt sure they cannot breed without pollen. We take away all the pollen, but give it back in the spring. He does not want them to breed in the winter.

Mr. Townley said if you go to the cellar and find the bees quiet, you can be quiet too. We make statistics slowly—have only 12 colonies.

The following by Charles F. Muth, Cincinnati, was read on

Wintering of Bees.

Several conditions are essential under which bees can winter safely; but laughable somtimes and contradictory are the conditions reported under which bees have passed a winter in safety. These, put up again in the same manner, were lost the following winter. Among the colonies of an apiary prepared in the same manner, and by the same party, we find sometimes in spring a strong, splendid colony by the side of a weak one, which had been, in fall, in better condition than its now vigorous neighbor. A friend had his 40 colonies of bees in two rows, and during a severe winter, 10 or 12 years ago, he lost every one of them but the four end colonies, the very ones which were exposed to wind and weather most. His bees had died of dysentery, my friend said, and so they had, but dysentery was caused by eating sour honey, which, again, was the consequence of a damp, warm hive, otherwise the combs would not have been so moldy, nor the insides of the hives so wet. He had his bees covered up warm and tight, with straw under the hives and between them. Had each hive been properly ventilated, this dampness would not have accumulated and his bees would have lived.

One of the most essential conditions for good wintering, next to a good colony of bees, is undoubtedly a sufficient quantity of good honey, in the proper place, *i. e.*, in the middle of the hive, and within easy reach of the cluster. I do not believe that fine clover honey is more wholesome for bees than fall honey, nor that all must be capped; but if your hive is insufficiently ventilated, your uncapped honey is the first to sour, and the bees get dysentery earlier than they otherwise would, while with proper ventilation, there would be no sour honey and no dysentery.

We can keep honey in open vessels in a garret, or in a warm, dry room, in good condition forever, while it sours in a damp cellar. By the efforts of the bees to create the necessary heat in winter, their exhalations, unable to escape, condense into water, which hangs in large drops under their top covering until it runs down the combs, the walls of the hive, and out in front. The hive is worse than a damp cellar. Should we expect honey to keep or bees to prosper under such conditions? There is an abundance of hives in the same condition every winter, as every observing bee-keeper knows, and, what is worse, we find them sometimes in our own apiaries.

The next essential condition for everything that breathes is pure air, and bees are no exception to the rule. As soon as we learn the art of providing our hives with the proper upward ventilation, so as to have the moisture removed and the air renewed gradually without causing a draft through the colony, we will have advanced considerably. No difference how well the hives are covered with absorbing material, it will amount to nothing unless we provide ventilation above. A tightly filled, thick, chaff cushion is as bad as a tight wooden cover or an oil-cloth, because it will retain the moisture in spite of the air passage above it. But chaff put on loosely, or a straw mat (I prefer the latter), are good absorbents and non-conductors, and answer the purpose admirably.

Bees can create a great amount of heat and withstand severe cold, but the longer the cold spell lasts, the greater should be the ventilation by the air-space above the covering. As long as frost is visible in the ventilators or upper stories provided for ventilation, so long is the ventilation insufficient. A different protection is necessary under different surroundings and in different climates, as a matter of course; but until we learn how to provide our bees with pure air properly, we shall always be in trouble as to the best mode of wintering.

I provided air-passages, this fall, by boring an inch hole in each side of the upper story near the cover.

Cincinnati, O. CHAS. F. MUTH.

Mr. Harrington said that in Ohio near his home, there was a certain wild flower that was sure death to bees; the honey from it ferments before the bees can store it. One gentleman lost his bees last spring from too early breeding.

Mr. Jones said that dampness and dysentery were most to be dreaded; the former is frequently the cause of the latter. Bees will winter if dry and well provisioned.

Mr. Townley believed that dryness is necessary.

Mr. Jones had found fine dry sawdust is the best absorbing material.

Pres. Heddon read part of a letter favoring the removal of pollen.

Mr. Herd, of Saginaw: I have no upward ventilation—no passages through the combs—none die. I have practiced the same plan of wintering for 5 years. Never put a colony up so that did not live. He has 50 colonies; he fed rye flour in the spring. The cold snap in April killed 15.

B. Walker: I don't take much stock in honey causing sickness; I removed the pollen, but lost all last winter.

Mr. T. F. Bingham read a paper entitled "Hints." If you find open cells in solid honey (that is all open) it is a hint that the honey is thin, or not very well ripened. If you open a shallow frame hive and raise the mat carefully, a stir will be seen somewhere on the top of the frames, it is a hint that the queen is just below; and if you wish to find her, examine the two combs each side, and you will find her at once. Deep frames will not show this. When bees suddenly stop swarming, it is a hint that the special flowers on which the swarming began is on the decline, and the surplus capacity is to be narrowed, so as to avoid partially filled sections.

The matter of petitioning the State Board of Agriculture, suggested by Pres. Cook, was referred to committee.

Mr. Jones explained his method of waxing sections with a revolving wheel. In reply to the question, "which paid best, the getting of extracted honey, or honey in the comb?" I use the extractor exclusively. I also chloroform bees in introducing queens. I place a small sponge filled with chloroform in a bellows bee smoker, and blow it into the entrance of a hive until the bees are still and quiet, then let the queen run in at the entrance.

Mr. Heddon remarked: The chloroform is taken into the circulation, and did not think it should be used.

Dr. Southard sustained the opinion.

Prof. Cook thought Mr. Heddon wrong, and requested Dr. Kellogg to explain:

The Doctor stated that its repeated use on human beings was deleterious. The blood must be saturated with it, hence it takes time to recover. The effect is to benumb the nerve centers. Prof. Cook thanked Dr. Kellogg for his last winter's service in helping to bring the adulteration matter before the Legislature.

The question box contained the following: "Can bees be made to swarm when no honey is coming in?" Answer by Mr. Jones—Yes.

"How can bees be prevented from swarming?" Mr. Heddon thought that it was generally best that they should swarm, but could be prevented by keeping an abundance of empty cells for the queen's use.

"How can a drone-laying worker be disposed of?" Mr. Townley said to remove the hive to a distant place and put a hive having a good queen in its place. Mr. Harrington gives the colony a good queen. Mr. Andrus could find and remove. Others could not detect them.

"Can we be compelled to remove bees from a city?" Mr. Miner had looked into the subject, and learned that they could be removed if they were proved to be a nuisance.

"How can bees be handled when neither smoke nor sweetened water will subdue them?" Answer—Use puff-ball or sprinkle them with water.

"Is shade necessary for bees?" Mr. Heddon said yes; I use a board laid on the hives.

"How can we get drones only from our best colonies?" Answer by Mr. Walker—Put drone comb in the hive from which you wish to get the drones.

"In cellar wintering, is it best that hives should be near the floor?" Answer by Mr. Robinson—Yes, if the room is dry. Mr. Jones had found that the air near the bottom of the room is injurious to bees unless ventilation is good.

The committee on delegates reported 45 gentlemen from other States and 92 delegates from other societies.

A committee was appointed on establishing a society in the southwestern part of the State, and one for the northeastern part of the State.

The committee on exhibits reported a large display, which included the following:

James Heddon, of Dowagiac, exhibits 3 kinds of foundation, Vandervort, Dunham and Given; also spruce dovetailed sections and honey box, his feeder, honey jars (3 sizes), Given comb foundation in wired frames, Parker's foundation fastener and tin pail for honey.

J. D. White, of Massachusetts, exhibits a feeder built on the same principle as the Shuck, as is also Mr. Heddon's.

Mr. Forncrook, of Wisconsin, shows a lot of one-piece sections, both in the flat and put together.

Mr. D. A. Jones, of Beeton, Ont., exhibits a lot of japanned cans for marketing extracted honey, varying in capacity from ¼ to 5 lbs. each; a package of Bokhara clover seed, a refrigerator model for regulating the temperature of winter repositories for bees, sheets of perforated metal for separating the brood nest from the surplus frames, and to regulate the entrances to hives; a lot of honey labels, and an improvement on the Langstroth style of frame, and a model for illustrating a new style of hive for wintering out-doors.

Prof. Cook exhibits an instrument for measuring the length of the tongues of different races of bees.

Mr. Haughey and Mr. Saulsbury each exhibit chaff hives, and Mr. Haughey an observatory hive.

M. D. Weeks, of Homer, cans of extracted honey.

Mr. Cutting, a feeder, L. C. Root's smoker, a frame of foul brood, and a collection of bee periodicals and books.

T. F. Bingham, of Abronia, Mich., Bingham smokers of various sizes, and Bingham & Hetherington honey knives. Dr. Whiting, a reversible frame supposed to combine the advantages of the Langstroth and Quinby frames, and to avoid their defects, the invention of Mr. Vandeusen, of Sprout Brook, N. Y.

Mr. A. I. Root, of Medina, O., a number of articles to be used in transporting bees by mail and express, a honey scale, etc.

W. B. Southard moved a vote of thanks to T. G. Newman, A. I. Root, D. A. Jones, H. B. Harrington, Medina, Ohio, which was carried unanimously.

Sixty-three new members were enrolled, and Thomas G. Newman, Chicago, Ill., A. I. Root, Medina, Ohio, D. A. Jones, Beeton, Ont. Can., and J. H. Townley, Thompkins, Mich., were elected honorary members.

Mr. Newman stated that large exhibits at State fairs produced good results. In London at the exhibition of the Royal Agricultural Society, American honey received the first premium. Every one wanted it. The streets and avenues were crowded to see American honey, and it sold rapidly at 60 cts. per lb. To see it was to covet it. He recommended the offering of large premiums for exhibits of honey, and this would command large exhibits.

Pres. Cook suggested a committee to take into consideration the exhibition of bees and honey at the Michigan State Fair in 1882.

Mr. Newman said bees were shown in London in a round tent with an open top. In St. Joseph, Mo., they were exhibited in one end of an upper room which was separated from the main room by mosquito net.

The President appointed the following gentlemen a committee to secure a good display at the Fair: H. D. Cutting, Clinton; A. B. Weed, Detroit; Dr. O. B. Ranney, Kalamazoo; James Heddon, Dowagiac; Byron Walker, Capac, and J. H. Robertson, Pewamo.

A resolution was passed extending an invitation to Dr. Nugent and Mr. Jones, Ont. Can., also T. G. Newman and A. I. Root, to be present at our next annual meeting.

The Forncrook patented one-piece section box caused a long discussion. The patented point was questioned, and Mr. Forncrook explained that it was the fact that the box was made of a single piece of wood. He said that all persons who had on hand sections that were an infringement of his patent at this date, might use them; but all infringements occuring after this date, would render the infringer liable to prosecution.

The meeting was characterized by a warm interest which extended to all those present. About 75 new members were added to the Association.

Adjourned to meet at Kalamazoo, December, 1882.

T. F. BINGHAM, *Sec.*

CORRESPONDENCE.

For the American Bee Journal.

That Adjourned Meeting.

MRS. L. HARRISON.

The adjourned meeting of the North American Bee-Keepers' Society, did not meet as anticipated in Mammot Cave, but had a delightful session in a cab. The States of New York, Kentucky, Illinois, Missouri, Wisconsin and Georgia were represented. A recess was taken when the vehicle reached Ashland, the former home of Kentucky's great Statesman, Henry Clay. A few souvenirs were gathered, and the meeting convened until the stock farm of General Withers was reached. This session was delightful, as the weather was off the very best piece, the air soft and balmy, and the pike smooth and level, without being dusty. We viewed from the windows of the cab a magnificent building with a grand cupola, and a large stained glass window in front. Some of our party remarked that it was a church, others that it was a dwelling house. On alighting, it was found to be a horse hotel, with all the modern conveniences. It was an arcade with an asphaltum drive-way, and separate apartments for each occupant on each side, and finished in hard wood of dark and light walnut. These departments were supplied with fresh water, and the table d'hote was supplied from the store-rooms above through sliding doors and spouts; light was admitted through stained glass of delicate blue and gold, as being best suited to the vision of a horse. I wish the architects of halls and churches would visit this building, and take a lesson on ventilation. The General remarked that "his house was not so well ventilated;" but then horses of unnamed value are of more consideration than human beings.

We viewed with pleasure the many fine horses led out for our inspection, and while doing so, the General said, "my father lived to be 90 years old, and always ate at every meal a small quantity of honey." We again convened in the cab, and were driven quickly to the cemetery to view the last resting place of Henry Clay, and of John Morgan, the famous raider, who knew so well how to ride. The monument erected by the State of Kentucky over the remains of Henry Clay, is a magnificent one, and his statue can be viewed from a great part of the city of Lexington.

The next morning a short session was held in the cab (our members being much reduced), and we were driven to the stock farm of Dr. Hert to view the fine stock congregated there. Words fail me to describe the magnificent animals we there saw, and we recall with pleasure the happy moments we spent while rubbing the velvety noses, and patting the sleek sides of these superb creatures.

The National Bee-Convention of 1881, is one of the happy events of our life, and we shall always feel grateful to Mr. & Mrs. Williamson for their hospitality, and to the people of Lexington for their many courtesies extended to us while there.

Peoria, Ill.

SELECTIONS FROM OUR LETTER BOX

Losses Recovered.—The thermometer indicated 46° at noon to-day. Bees flew a little. The losses of last winter are well over-come by the good management of summer and fall. The bees are strong and in good condition.

J. E. BREED.

Embarrass, Wis., Dec. 16, 1881.

Bee-Culture in Georgia.—I cannot be without the BEE JOURNAL. My 34 colonies are all doing well so far. I have some fine Italians and aim to increase largely the coming year. I am determined to make my bees pay me something before I am done with them. There is no other person in this section paying any attention to bees. I cannot get any of them out of the old plan of log gums. They say, "talk to me about one queen laying all the eggs for a colony; it is all bosh." But they are beginning to notice that I am the only man in this locality that is having any success. They will wake up sometime. I will send you a sample of some of my cotton honey. I think it will equal the white clover honey. I took 80 lbs. from one hive as fine as I ever saw.

H. M. WILLIAMS, M. D.

Bowdon, Ga., Dec. 14, 1881.

Must Have the Weekly.—I like the shape of the BEE JOURNAL much better than last year. It is better for handling and binding. I do not see how I can get along with any less than the Weekly, and enclose $2 for it.

JOHN H. HODGKINS.

Shirland, Ill., Dec. 20, 1881.

A Mild Winter.—The winter here up to this date has been extraordinarily mild, with lovely weather. There has been very few days in the middle of the day that bees have not been flying. Of course they consume more honey, and the greatest danger that I anticipate to the bee-keepers of Kentucky, will be a backward spring with stores exhausted and colonies weakened. The only safeguard will be early and constant feeding.

W. WILLIAMSON.

Lexington, Ky., Dec. 17, 1881.

Honey in Glass Jars for Home Market.—Glass jars for honey are not dead but asleep. Mrs. Harrison labors under a mistake when she tells us that honey put up in glass jars and tumblers are killed too dead to bury. Honey put up in Mason fruit jars is more attractive and pleasing to the eye than any other form, and of necessity must be clear and clean. Nice clean sections are hard to beat, but many of my customers prefer glassed boxes rather than sections. Glass protects the honey from dust and strangers' hands, from getting bruised, etc. I always sell my honey in Mason fruit jars (this season some in jelly glasses), with the best and most satisfactory success. I use Mason glass fruit jars for honey for the following reasons: 1. They show the contents and are therefore most attractive. 2. Glass is durable and more easily kept clean. 3. They are easily opened to prove the quality of the contents, and last, but not least, are lasting (unless broken), and therefore are worth the cost price for other purposes. This season I retailed quarts at 65 cts., and pints at 35 cts.; tumblers at 25 cts. My extracted honey thus net me over 18 cts. per lb. I commenced with 10 colonies last spring, and have sold to this date $171.49 net exclusive of jars.

H. S. HACKMAN.

Peru, Ill., Dec. 19, 1881.

Weekly More Acceptable than a Monthly.—Please mark my name as a life subscriber to your most excellent paper. I do not want to miss one number. I would not have it go back to the monthly again; at twice its present price, it would be more acceptable than a monthly. God bless your efforts, Mr. Editor. You are elevating our noble cause, and educating the fraternity to a higher standard. I say "*amen*," to your war upon glucose and its advocates.

F. C. BENEDICT.

Perry Centre, N. Y., Dec. 18, 1881.

Double Walled Hives.—My bees are flying lively to-day. I am a beginner in bee-culture, only having been in the business about 3 years. My enthusiasm increases in proportion to the knowledge obtained of the science. I have but 14 colonies of bees; my aim at the start was to go slow. When I feel that I am master of the situation, I shall obtain more bees. Being a carpenter, I make my own bee-aparatus. In my opinion, in-door wintering in Southern Ohio is unnecessary with a properly constructed hive. I use the standard Langstroth hive, double walled, half in dead-air space all around, quilt over frames, cap a duplicate of brood chamber, except outer case; cleats are nailed to the bottom of cap to form a projection, or rather a covering of double walls below. The cap has a movable cover. I constructed my hive for the purpose of obtaining either comb or extracted honey, as I may desire. I live within 3 miles of Athens, the county seat, and own 2 acres of land, having on it a great variety of fruit, also a carpenter shop with cow stable underneath it. But little plowing is done in this neighborhood. Sheep growing is our specialty. White clover and basswood are our best honey producers.

B. S. MILES.

Athens, O., Dec. 18, 1881.

A Suggestion.—A report from each State where bees are cultivated, similar to the following, would be of much interest to bee-keepers: In the month of November our bees were on the wing 23 days. The last pollen was brought in on the 18th. On the 13th pollen of 3 colors was brought in—red, white and yellow. The lowest dip of the mercury was 16° above zero F, and the highest temperature was 74°. The ground was white with snow a few hours on the 22d. It is too soon to speak for the whole of December, but 20 days have passed, and our bees have been able to stir in the open air 10 days. The lowest dip was 29°, and the highest temperature was 68°. The loss of old bees by the first shock of winter was unusually small.

G. W. DEMAREE.

Christiansburg, Ky., Dec. 20, 1881.

Leaky Hives.—Now is a good time to overhaul your caps, especially if the hives containing the bees are in winter quarters. It is surprising what havoc the sun and rains soon play with the roofs. Most bee-keepers know what an annoyance it is to find your nice white sections all stained and wet, to say nothing about the discomfort and danger to the bees. How often, perhaps, do we lay the cause of loss to bad stores, bacteria, etc., when the real cause is simply a leaky roof. I have found an excellent plan to stop the cracks between boards, especially the small ones, that paint and putty will not readily fill, by simply pressing a string of suitable thickness into the cracks, and cover it with a coat or two of good paint. This is much better than putty, which readily cracks and still lets in the water. Putty is the proper thing for knot holes and any uneven places. Keep your hives, especially the roofs, well painted. Money spent in this way will pay a hundred per cent. C. H. DIBBERN.

Milan, Ill., Dec. 19, 1881.

Good Increase.—I must have the BEE JOURNAL as long as I keep bees. I had no success with my bees last winter. I put 24 colonies in the cellar, and by the 1st of May I had only 1 weak colony left. They had plenty of honey. Some of the hives had 50 lbs. of honey. I bought 6 Italian queens and 6 lbs. of bees, and they built up to good colonies.

I. C. PETERS.

Greenleaf, Minn., Dec. 10, 1881.

Plentiful Crop.—I have 135 colonies of bees in the cellar. I commenced with 80; some were weak. They gave me 4,000 lbs. extracted, and about $100 worth of comb honey.

LEWIS W. SARLES.

Foxboro, Ont., Dec. 14, 1881.

Local Convention Directory.

1882. *Time and Place of Meeting.*

Jan. 10—Cortland Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
10—Eastern N. Y., at Central Bridge, N. Y.
N. D. West, Sec., Middleburgh, N. Y.
12, 13—Nebraska State, at Ashland, Neb.
Geo. M. Hawley, Sec., Lincoln, Neb.
17, 18—N. W. Ill. & S. W. Wis., at Freeport, Ill.
Jonathan Stewart, Sec., Rock City, Ill.
17, 18—N. E. Wisconsin, at Berlin, Wis.
T. E. Turner, Sec. pro tem.
24, 25—Indiana State, at Indianapolis, Ind.
25—Northeastern, at Utica, N. Y.
Geo. W. House, Sec., Fayetteville, N. Y.
April 11—Eastern Michigan, at Detroit, Mich.
A. B. Weed, Sec., Detroit, Mich.
25—Texas State, at McKinney, Texas.
Wm. R. Howard, Sec.
26, 27—Western Michigan, at Grand Rapids.
Wm. M. S. Dodge, Sec., Coopersville, Mich.
May ——Champlain Valley, at Bristol, Vt.
T. Brookins, Sec.
25—Iowa Central, at Winterset, Iowa.
Henry Wallace, Sec.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

☞ The Northwestern Wisconsin Bee-Keepers' Association will meet in the City Hall at La Crosse, Wis., on Jan. 2, 1882. Essays and discussions on important subjects concerning bees will be the order.

L. H. PAMMEL, *Sec.*

☞ The Nebraska State Bee-Keepers' Association will hold its annual meeting in Ashland, Neb., on the 12th and 13th of January, 1882. A cordial invitation is extended to all who are interested in bee-culture. Members will be returned to their homes by the railroad companies at 1 cent per mile.

T. L. VONDORN, *Pres.*, Omaha.
G. M. HAWLEY, *Sec.*, Lincoln.

☞ The eastern New York Bee-Keepers' Union Association, will hold their ninth Convention, Tuesday, Jan. 10, at 10 a.m., at Central Bridge, Scho. Co., N. Y. W. D. WRIGHT, *Pres.*
N. D. WEST, *Sec.*

☞ The annual meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held in Temperance Hall, Freeport, Stephenson Co., Ill., on Jan. 17 and 18, 1882.

JONATHAN STEWART, *Sec.*

☞ The Indiana State Bee-Keepers' Association is called to meet in annual session, Wednesday and Thursday, Jan. 24 and 25, 1882, in the rooms of the State Board of Agriculture. By order of EXECUTIVE COMMITTEE.

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Special Notices.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

◆

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or $8 per 100.

◆

☞ Articles for publication must be written on a separate piece of paper from items of business.

◆

Photographs of prominent Apiarists —Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

◆

☞ When changing a postoffice address, mention the *old* as well as the new address.

◆

☞ Constitutions and By-Laws for local Associations $2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

◆

The Color and Lustre of Youth are restored to faded or gray hair by the use of Parker's Hair Balsam, a harmless dressing highly esteemed for its perfume and purity. 49w4

◆

A Sample Copy of the Weekly BEE JOURNAL will be sent *free* to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

◆

☞ It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State.—Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

◆

☞ It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

◆

It is Worth Remembering that nobody enjoys the nicest surroundings if in bad health. There are miserable people about to-day with one foot in the grave, when a bottle of Parker's Ginger Tonic would do them more good than all the doctors and medicines they have ever tried. See adv. 49w4

◆

☞ We are sometimes asked who our authorized agents are? Every subscriber is such an agent; we have no others, and greatly desire that each one would at least send in one new subscriber with his own renewal for 1882. The next few weeks are the time to do this. We hope every subscriber will do his or her best to double our list for 1882.

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums. Their own subscription may count in the club:

For a Club of **2**,—a copy of "Bees and Honey."
" " **3**,—an Emerson Binder for 1882.
" " **4**,—Apiary Register for 50 Colonies, or Cook's (Bee) Manual, paper.
" " **5**,— " " cloth.
" " **6**,—Weekly Bee Journal for 1 year, or Apiary Register for 200 Col's.

Or they may deduct 10 per cent in cash for their labor in getting up the club.

◆

Binders for 1882.—We have had a lot of Emerson binders made especially for the BEE JOURNAL for 1882. They are lettered in gold on the back, and make a nice and convenient way to preserve the JOURNAL as fast as received. They will be sent post paid by mail for 75 cents. To all who send during this month (December) for the JOURNAL and binder for 1882, we will send both for $2.50. We do this to encourage all to get the binder and preserve the BEE JOURNAL for reference, and to save us the expense of removing the name from our type mailing machine, and then resetting it in January or February.

◆

☞ Binders cannot be sent to Canada by mail—the International law will not permit anything but samples of merchandise of less weight than 8 ounces. Canadians will please remember this when ordering Binders.

◆

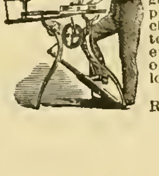
☞ Look at the wrapper label and see that proper credit is given for money sent us, within 2 weeks. If it does not then appear, please send us a Postal Card, and we shall with pleasure make the correction, for an error may occur during the rush at this season, though we endeavor to be careful to always give proper credit.

◆

☞ If any numbers of this years' BEE JOURNAL have been lost, look them over at once and send us a Postal Card stating the missing numbers and we will send them *free*, as long as we have any left.

◆

☞ Of the many Guides and Seed and Plant Catalogues sent out by our Seed and Nurserymen, and that are doing so much to inform the people and beautify and enrich our country, none are so beautiful, none so instructive as *Vick's Floral Guide*. Its paper is the choicest, its illustrations handsome, and given by the thousand, while its Colored Plates are gems. This work, although costing but ten cents, is handsome enough for a Gift Book, or a place on the parlor table. Published by James Vick, Rochester, N. Y.



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We supply the Weekly **American Bee Journal** and any of the following periodicals, for 1882, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage is prepaid by the publishers.

	Publishers' Price.	*Club.*
The Weekly Bee Journal (T.G. Newman)	$2 00..	
and Gleanings in Bee-Culture (A.I. Root)	3 00..	2 75
Bee-Keepers' Magazine (A.J. King)	3 00	2 60
Bee-Keepers' Instructor (W. Thomas)	2 50..	2 35
The 4 above-named papers.......	4 50..	4 00
Bee-Keepers' Exchange (J.H. Nellis)	3 00..	2 80
Bee-Keepers' Guide (A.G. Hill)......	2 50..	2 35
Kansas Bee-Keeper........	2 60..	2 40
The 7 above-named papers... ...	6 30..	5 50
Prof. Cook's Manual (bound in cloth)	3 25..	3 00
Bees and Honey, (T. G. Newman) ..	2 40..	2 25
Binder for Weekly, 1881...............	2 85..	2 75
Binder for Weekly for 1882	2 75..	2 50

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL,
Monday, 10 a. m., Dec. 26, 1881.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—The market is lively and prices steady. We quote light comb honey, in single comb boxes, 18@22c; in larger boxes 2c. less. Extracted 8@9c.

BEESWAX—Prime quality, 18@22c.

AL. H. NEWMAN, 972 W. Madison St.

NEW YORK.

HONEY—The supply is full, and trade is lively. We quote as follows: White comb, in small boxes, 18@22c; dark, in small boxes, 15@17c. Extracted, white, 10@11c.; dark, 7@9c.

BEESWAX.—Prime quality, 21½@23c.

THORN & CO., 11 and 13 Devoe avenue.

BOSTON.

HONEY.—1-pound combs are a desirable package in our market, and a large quantity could be sold at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21@23c.; Western, pure, 21@22c.; grease wax, 11c.—*Baltimore Market Journal.*

INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22@25c.—*Indianapolis Stock Review.*

PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX — Best light 23@25c.—*Philadelphia Merchants' Guide.*

CLEVELAND.

HONEY—Comb honey has been a little dull for a week, but prices are unchanged. We sell best white 1 lb. sections at 22c.; 2d best, 20c., and dark 18c; 2 lb. sections, 17@20c. Extracted, 12c. in small packages; 11c. in half bbls.

BEESWAX—22@25c.

A. C. KENDEL, 115 Ontario Street.

ST. LOUIS.

HONEY—Plentiful and slow for all save choice bright comb—this sold readily: comb at 18@22c.; strained and extracted 9@11c. to 12½c.—top rates for choice bright in prime packages.

BEESWAX—Selling lightly at 19@20c.

R. C. GREER & CO., 117 N. Main Street.

SAN FRANCISCO.

HONEY—The southern boat this week brought 168 cases, principally comb. It is next to impossible to find buyers at current figures, except where a case or two is retailed to some small dealer. There would be no trouble in placing all offerings to wholesale buyers, if concessions were made, but this holders are endeavoring to avoid, at the same time being anxious to realize.

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 8¾@10c.; dark and candied, 7@8c. BEESWAX—23@25c.

STEARNS & SMITH, 423 Front Street.

CINCINNATI.

HONEY—Our honey trade is a little slow just now, perhaps because of the unfavorable weather; but it has been first-class. My sales during two weeks in the month of October amounted to 22,000 lbs. of extracted honey—more honey than I ever sold in two weeks before. About 15,000 lbs. of the above was sold by the barrel, and almost all the balance in our square pound jars, and all these latter, with the exception of about 10 gross, were sold in our city, partly in shipping orders and partly in crates for the trade. Pound glass jars are by far the handsomest retail packages. They do not sell in Chicago nor in New York because adulterators have spoiled the retail trade especially for extracted honey. They used glass jars. But I doubt very much whether I should have created a retail market for extracted honey with the same success had I not adopted the square glass jar. I adopted it because adulterators were using the round bottles. For 10 and 25 lb. packages nothing is handier than tin buckets, and I have a good trade for them from druggists, bakers, retail grocers, etc.

I pay 8@11c. for extracted honey on arrival, and 16@18c., for choice comb honey.

BEESWAX.—18@22c., on arrival. I have paid 25c. per lb. for choice lots. C. F. MUTH.

ELECTROTYPES

Of Engravings used in the Bee Journal for sale at 25 cents per square inch—no single cut sold for less than 50c. THOMAS G. NEWMAN,
974 West Madison Street, Chicago, Ill.

THE AMERICAN BEE JOURNAL

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A Fortnightly Journal of
Agriculture, Horticulture and Rural Affairs.
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The only Agricultural Paper in the State.

If you want reliable information of the Climate, Soil and Productions of the Growing STATE OF TEXAS, take the **Agricultural Journal.** It circulates all over the State, and is rapidly growing in popular favor. It carries a well conducted Bee Department, and has a large circulation with Texas Bee-Keepers. It is the best advertising medium in the State for reaching the Farming and Bee-Keeping population. Subscription $1.25 a year. Monthly, edited and published by A. A. PITTUCK. Address, **Agricultural Journal,** Hempstead, Texas. 51w2tx

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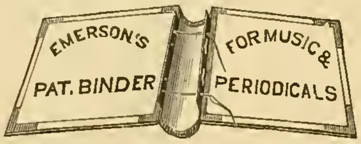

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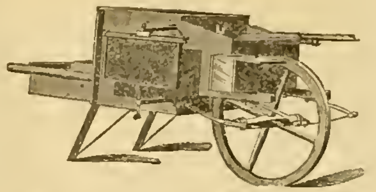

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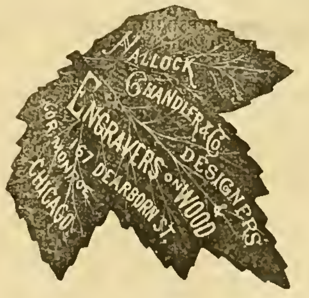

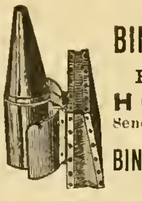

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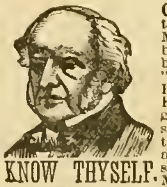

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